



SPECIAL CALLED MEETING OF THE MAYOR AND BOARD OF ALDERMEN OF THE CITY OF GLUCKSTADT, MISSISSIPPI

Wednesday, April 24, 2024 at 11:00 AM

Agenda

This notice and agenda of the Special Called Meeting of the Mayor and Board of Aldermen is hereby given by the undersigned. Said meeting shall be held on Wednesday, April 24, 2024, at 11:00 AM in the Board Room at City Hall, located at 343 Distribution Drive, Gluckstadt, MS 39110.

The business to be brought before the meeting shall be limited to the following:

- 1. Call Meeting to Order and Roll Call**
- 2. Opening Prayer and Pledge of Allegiance**
- 3. Approval of Consent Agenda Items**
 - [A\)](#) Requesting Approval for Sergeant David Potvin, Sergeant Duane Montgomery, Officer Eric Huff and Ruth Marie Stogner to attend the S.T.O.R.M. 2024 Spring Conference & Reimbursement of All Associated Travel Fees (May 6-10, Biloxi)
 - [B\)](#) Claims Docket (Police Department Trainings, Upcoming)
- 4. Building Official, Planning and Zoning Matters (William Hall)**
 - [A\)](#) Discussion of December 12, 2023 Magnolia District Site Plan Approval
- 5. Public Comment**
- 6. Closed Session to Determine Need for Executive Session**
 - A) Personnel Matters, Gluckstadt Police Department
- 7. Adjourn**

WALTER C. MORRISON, IV
MAYOR

We the undersigned Aldermen acknowledge that we were given notice of said meeting at least three (3) hours in advance thereof by a copy of this notice.

Alderwoman Bates _____

Alderman Powell _____

Alderman Slay _____

Alderman Taylor _____

Alderwoman Williams _____

ATTEST: _____ DATE: _____

LINDSAY D. KELLUM
CITY CLERK

[Seal]



CITY OF GLUCKSTADT

MISSISSIPPI

OFFICE OF THE POLICE DEPARTMENT

343 Distribution Drive, Gluckstadt, Mississippi 39110

To: Mayor & Board of Alderman

From: Barry Hale, Police Chief

Date: April 17, 2024

Subject: Requesting Approval for Sergeant David Potvin, Sergeant Duane Montgomery, Officer Eric Huff and Ruth Marie Stogner to attend the S.T.O.R.M. 2024 Spring Conference

I'm requesting approval from the Mayor and Board of Alderman for Sergeant David Potvin, Sergeant David Montgomery, Officer Eric Huff, and Ruth Marie Stogner to attend the S.T.O.R.M. 2024 Spring Conference located at the IP Hotel and Casino. The address of the hotel is 850 Bayview Avenue, Biloxi, MS 39530. There is no charge for the rooms as they are provided by S.T.O.R.M, and I'm only requesting reimbursement for food, attendee fee per person, and the use of city vehicles to travel to and from the conference. This will not interfere with the daily operations of the police department and all shifts will be covered during the conference. Sergeant David Potvin and Ruth Marie Stogner will be traveling to the conference one day earlier on May 06, 2024. There will be a cost of \$50.00 per attendee for the conference. The cost of the conference and training is in our travel and training budget.

Sincerely,

A handwritten signature in blue ink, appearing to be "Barry W. Hale", written over a large, loopy blue scribble.

Chief Barry W. Hale



S.T.O.R.M.

2024 Spring Conference

Tuesday, May 7th – Thursday, May 9th

IP Hotel and Casino

850 Bayview Avenue, Biloxi, MS

- Lodging for Tuesday and Wednesday nights included for first 40 members to register.
- Do not book your own room if you want a STORM provided room.
- Cost-free training (16 hours CEU's).
- Wednesday night meal (cookout BBQ style).
- Door Prize ticket (includes final drawing for top prize at conference end).

Conference Agenda

Tuesday May 7th

10am – 12pm - Conference registration and opening remarks

12pm – 1pm - Lunch Break

1pm – 3pm Molly Miller DUI Law updates and blood draw updates

3pm – 5pm MSTIDE – SFST, ARIDE and DRE updates

Wednesday May 8th

9am – 12pm - Chris Kirby
Indiana Highway Safety Office
Oral Fluid Testing

12pm – 1pm – Lunch Break

1pm – 3pm – Chris Kirby
Indiana Highway Safety Office
Oral Fluid Testing cont'd

3pm – 5pm – SFST Recerts (MSTIDE)

6pm – until – cookout and activities

Thursday May 9th

9am – 10am - words from our partners

10am – 12pm business meeting and board elections. Closing remarks and adjournment

Additional Ticket Information

Section 3, Item A)

Ticket First Name:

Jeremy

Guest Name:

Purchase Order Information

PO Number:

202400160



<https://www.facebook.com/mschiefs>



<https://twitter.com/MSPoliceChiefs>

[EVENTS](#)

[CONTACT](#)

[MEMBER LOGIN](#)

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Gluckstadt, MS

Docket of Claims Register

Section 3, Item B)

APPKT00497 - April 24, 2024 Claims Docket

By Docket/Claim Number

| Vendor # | Vendor Name | Payable Number | Payable Description | Payable Type | Payable Date | Item Description | Account Number | Payment Amount Distribution Amount |
|------------------------|----------------------------------|----------------|-------------------------------------|--------------|--------------|------------------------------|------------------------------|------------------------------------|
| 00050 | Mississippi Municipal Clerks and | 042024 | Kellum Graduation Fee | Invoice | 04/24/2024 | Kellum Graduation Fee | 001-140-61000 | 150.00 |
| 00349 | S.T.O.R.M., Incorporated | 2024380 | Membership Fees - Stogner/Potvin/Hu | Invoice | 04/24/2024 | Membership Fee - Huff | 001-200-62200 | 200.00 |
| | 202406GPD | | | | | Membership Fee - Montgomery | 001-200-62200 | 50.00 |
| | | | | | | Membership Fee - Potvin | 001-200-62200 | 50.00 |
| | | | | | | Membership Fee - Stogner | 001-195-62200 | 50.00 |
| 00350 | Tap-Rack Tactical, LLC | 042024Slaven | Slaven Course Fee (May 8-10) | Invoice | 04/24/2024 | Slaven Course Fee (May 8-10) | 001-200-61000 | 1,400.00 |
| | | 042024Tucker | Tucker Course Fee (May 8-10) | Invoice | 04/24/2024 | Tucker Course Fee (May 8-10) | 001-200-61000 | 700.00 |
| Total Claims: 3 | | | | | | | Total Payment Amount: | 1,750.00 |



CITY OF GLUCKSTADT

MISSISSIPPI

PLANNING AND ZONING ADMINISTRATOR

MEMORANDUM

TO: Mayor & Board of Alderman

FROM: William Hall, Planning and Zoning Administrator

DATE: 04/22/2024

SUBJECT: Discussion of December 12, 2023 Magnolia District Site Plan Approval

The Planning and Zoning Board first reviewed the conditional use and site plan for Magnolia District on Church Road at the P&Z Meeting on November 28, 2023. The conditional use was approved with discussion of there being one main entrance and the hours of operation not to exceed 10PM nightly.

The site plan was reviewed and discussed with it being noted that the building is to include a restaurant. A partition or covering wall, aka parapet, was recommended to hide the roof top equipment from view. A motion was made and approved with this recommendation.

The architect did not provide updated renderings to show a parapet wall before the meeting of the Mayor and Board of Aldermen. To supplement the existing unamended site plan, a P&Z Memo outlining the recommendation request of the P&Z Approval, along with a copy of the P&Z minutes, was included in the agenda packet for review. Upon review of the audio from the meeting, the following occurred: Conditional use was discussed and approved unanimously by the Board of Aldermen. A motion was requested and made for site plan approval, with no discussion, and was passed unanimously by the Board of Aldermen.

“In accordance with recommendations provided by the Planning and Zoning Commission” is language that was developed to show the intent of the Planning and Zoning Commission was relayed to the Mayor and Board via the minutes of the prior P&Z meeting. It is assumed that if no issue exists with the recommendation of requirements from the P&Z Commission, then no discussion of the recommendations is required. If a recommended requirement is to be modified, then a discussion of that requirement would occur, and an amendment would be placed in the motion made for approval. With the number of recommendations that can occur, this was the most efficient way we could develop to keep the minutes concise and to expedite the approval process within the meetings.



CITY OF GLUCKSTADT

MISSISSIPPI

PLANNING AND ZONING ADMINISTRATOR

MEMORANDUM

TO: Mayor & Board of Alderman

FROM: William Hall, Planning and Zoning Administrator

DATE: 12/01/2023

SUBJECT: November 28th, 2023, Planning and Zoning Board Meeting

The Planning and Zoning Board met at its regularly scheduled meeting on November 28th, 2023, at 6:00 PM at the Gluckstadt City Hall and took the following actions.

1. The Planning and Zoning Board approved the recommendation of conditional use approval for the AT&T Cellular Tower located at 130 American Way with the condition of additional screening material being used in the cyclone fencing to better obscure the equipment inside the fence.
2. The Planning and Zoning Board approved the recommendation of Site Plan Approval for the AT&T Cellular Tower located at 130 American Way.
3. The Planning and Zoning Board approved the recommendation of conditional use approval for the Magnolia District located on Church Road with hours of operation not to exceed 10PM nightly.
4. The Planning and Zoning Board approved the recommendation of Site Plan approval for the Magnolia District with recommendation to use a parapet wall to screen roof top equipment on the backside of the building and discussion of the dumpster enclosure being sufficient to cover the dumpster.
5. The Planning and Zoning Board approved the recommendation of conditional use approval for the Puckett Rents fully enclosed storage warehouse.
6. The Planning and Zoning Board approved the recommendation of Site Plan approval for the Puckett Machinery Site Plan with the recommendation of closing one of the two existing side entrances and creating a new entrance with concrete apron along the east side.
7. The Planning and Zoning Board tabled the Site Plan Consideration for the Blurton Holdings site plan due to no representation present at the meeting.
8. The Planning and Zoning Board placed the conditional use public hearing for Candlewood Suites in continuance until the January 23rd, 2024 meeting.
9. The Planning and Zoning Board discussed the need for a Special Called meeting in December due to City Hall being closed on the usual meeting date of December 26th, 2023. The Special Called Meeting is to be held on December 28th, 2023 at 6PM at the Gluckstadt City Hall Board Room.



PLANNING & ZONING COMMISSION MEETING

Tuesday, November 28, 2023, at 6:00 PM

Minutes

Call to Order

Commissioner Sam McGaugh called the meeting to order.

The following Commissioners were present: Commissioner Sam McGaugh, Commissioner Melanie Greer, Commissioner Phillips King, Commissioner Andrew Duggar, Commissioner KaTrina Myricks and Commissioner Tim Slattery. Commissioner Kayce Saik was absent.

Staff Members Present: Building Official William Hall, Public Works Director Chris Buckner, Executive Assistant Bridgette Smith, City Attorney John Scanlon and City Attorney Zach Giddy.

Opening Prayer and Pledge of Allegiance

Commissioner Sam McGaugh opened the meeting with prayer.

Commissioner Sam MCGaugh led the pledge of allegiance.

Consideration and Approval of Minutes

Commissioner Tim Slattery made the motion to approve the October 24, 2023, minutes.

Commissioner KaTrina Myricks seconded the motion to approve.

The motion carried and was approved by all Commissioners.

Consideration And Approval of October 24, 2023, minutes

New Site Plan Considerations

Discussion and Consideration of AT&T Conditional Use

Andy Rotenstreich with Baker Donelson gave a brief introduction on the proposed development. The cell tower is a 175-foot single design which will improve A T & T coverage. Located on the back corner of the property. The tower will be enclosed with a chain link fence with plastic covering. The lease agreement is for ten (10) years with the provider. If the lease is not renewed the tower and equipment will be removed by the provider.

The board recommended all future site plans for cell towers with a fence provide a fence to enclose the tower with a covering (plastic) on the fence and maintain the fence.

Commissioner Melanie Greer made the motion to approve.

Commissioner Andrew Duggar seconded the motion to approve.

The motion carried and was approved by all Commissioners.

Discussion and Consideration of AT&T Site Plan

The A T & T Site Plan was approved on contingent on the fence will enclose the tower with a plastic or canvas covering.

Commissioner Andrew Duggar made the motion to approve.

Commissioner Tim Slattery seconded the motion to approve.

The motion carried and was approved by all Commissioners.

Discussion and Consideration of Magnolia District Conditional Use

Danny Balanos addressed the board to discuss the proposed development which will be located on Church Road for outdoor activities. Which will include five (5) tennis courts and pickleball. The multi building is 11,700 square feet. The building will have one main access to the building. The hours of operation will not exceed 10:00 PM nightly.

Commissioner Tim Slattery made the motion to approve.

Commissioner Phillips King seconded the motion to approve.

The motion carried and was approved by all Commissioners.

Discussion and Consideration of Magnolia District Site Plan

The board discussed the proposed location of the dumpster, which is located at the front entrance. The dumpster will be enclosed on the construction plans when they are submitted to the building department for review. The Site Plans includes a restaurant, the board recommended a partition/covering the roof ventilation from view.

Commissioner Phillips King made the motion to approve.

Commissioner KaTrina Myricks seconded the motion to approve.

The motion carried and was approved by all Commissioners.

Discussion and Consideration of Puckett Machinery Conditional Use

Hastings Puckett addressed the board on the need for additional space at their location. They are adding an additional acre of space to construct a fully enclosed warehouse for equipment storage.

Commissioner Andrew Duggar made the motion to approve.

Commissioner Melanie Greer seconded the motion to approve.

The motion carried and was approved by all Commissioners.

Discussion and Consideration of Puckett Machinery Site Plan

Commissioner Sam McGaugh addressed the current business next to this property installed a fence on their property to enclose the rear of the property from view. The new design should extend 125 feet to meet the adjacent owner's property line. The current location has two (2) entrances off the road, it was recommended to close one (1) and add a new entrance with hardscraping concrete to coordinate with the existing property.

Commissioner Melanie King made the motion to approve.

Commissioner KaTrina Myricks seconded the motion to approve.

The motion carried and was approved by all Commissioners.

Discussion and Consideration of Blurton Holdings Site Plan

The Blurton Holdings Site Plan was tabled until the next scheduled meeting December 26, 2023.

The board discussed a possible change of date to schedule a Special Call Meeting for the December 26, 2023 meeting. The City of Gluckstadt offices are closed for the Christmas Holidays by the Governors Proclamation for Tuesday December 26, 2023.

No action was taken.

Discussion and Consideration of Variances for Candlewood Suites

Sam Deshi addressed the board; the property was purchased in 2019 They are planning to open a Candlewood Suites Hotel. They are requesting a Variance for additional parking and a height variance. The hotel will have eighty-one (81) rooms and 85 parking spaces with four (4) stories in height. The proposed site has one entrance which is currently twenty-four feet. The Fire Chief, Henry Davis addressed the board. The fire code requires an entrance to be twenty-six feet and two entrances to the property. The board recommended the developers meet with the Fire Marsal and the City of Gluckstadt building department to discuss revisions to their Site Plan.

It was tabled until the January 23, 2024, Planning and Zoning meeting.

New Business

No action was taken.

Next Meeting

The Planning and Zoning Board discussed moving the December 26, 2023, meeting to Thursday December 28, 2023. The regular meeting falls on a holiday, the City of Gluckstadt office will be closed. The Special Call Meeting will be held Thursday, December 28, 2023, at 6:00 PM.

Discussion of December Meeting Date

Adjourn


Commissioner Melanie Greer moved the meeting be adjourned.

Commissioner KaTrina Myricks seconded the motion.

The motion carried and was approved by all Commissioners.

WITNESS OUR HANDS, this the 29th day of December, 2023


SAM MCGAUGH, Chairman


MELANIE GREER, Vice Chairman/Secretary

The Mayor declared the motion carried.

D) Discussion and Consideration of Magnolia District Conditional Use

The Mayor requested a motion to approve conditional use for the Magnolia District. (Exhibit "K"). A motion to grant the conditional use application for the Magnolia District was made by Alderman Taylor, and seconded by Alderman Powell.

Voting Yea: Alderman Powell, Alderman Taylor, Alderwoman Williams, Alderwoman Bates, Alderman Slay.

The Mayor declared the motion carried.

E) Discussion and Consideration of Magnolia District Site Plan

The Mayor requested a motion to approve the site plan for Magnolia District in accordance with the recommendations provided by the Planning and Zoning Commission. (Exhibit "L"). A motion was made to approve the site plan for the Magnolia District by Alderman Powell in accordance with recommendations provided by the Planning and Zoning Commission, and seconded by Alderwoman Bates.

Voting Yea: Alderman Powell, Alderman Taylor, Alderwoman Williams, Alderwoman Bates, Alderman Slay.

The Mayor declared the motion carried.

F) Discussion and Consideration of Puckett Machinery Conditional Use

The Mayor requested a motion to approve the conditional use application for Puckett Machinery. (Exhibit "M"). A motion was made by Alderman Slay to approve the conditional use application for Puckett Machinery, and seconded by Alderman Powell.

Voting Yea: Alderman Powell, Alderman Taylor, Alderwoman Williams, Alderwoman Bates, Alderman Slay.

The Mayor declared the motion carried.

G) Discussion and Consideration of Puckett Machinery Site Plan

The Mayor requested a motion to approve the site plan for Puckett Machinery. (Exhibit "N"). A motion was made by Alderman Powell to approve the site plan for Puckett Machinery, and seconded by Alderman Slay.

Voting Yea: Alderman Powell, Alderman Taylor, Alderwoman Williams, Alderwoman Bates, Alderman Slay.

The Mayor declared the motion carried.

11. Public Works Department (Chris Buckner)



REGULAR MEETING OF THE MAYOR AND BOARD OF ALDERMEN OF THE CITY OF GLUCKSTADT, MISSISSIPPI

Tuesday, December 12, 2023 at 6:00 PM

Agenda

This notice and agenda of the Regular Meeting of the Mayor and Board of Aldermen is hereby given by the undersigned. Said meeting shall be held on Tuesday, December 12, 2023, at 6:00 PM in the Board Room at City Hall, located at 343 Distribution Drive, Gluckstadt, MS 39110.

The business to be brought before the meeting shall be limited to the following:

1. **Opening Prayer and Pledge of Allegiance**
2. **Call Meeting to Order and Roll Call**
3. **Presented Items**
 - A) SafeHaven Baby Box Update, New Gluckstadt Police Department and Municipal Court (Mayor Morrison)
 - B) Recognition of Local Chapter of Girl Scouts of Mississippi (Troop #4367) & Upcoming Anti-Bullying Initiative (Sheree Thompson)
 - C) Recognition of Miss Tougaloo College, Kaitlin E. Myricks
 - D) Recognition of Gluckstadt Christmas Parade Committee (Mayor Morrison)
4. **Approval of Consent Agenda Items**
 - A) Approval of Minutes, 11/14/23
 - B) Approval of Claims Docket
 - C) Approval of Middle Mississippi Building Officials Association Annual Membership Fees (Curtis Jones, Building Inspector/Code Enforcement Officer)
 - D) Request for Discussion and Approval to Remove Flock Safety Cameras from Fixed Assets
 - E) Requesting Approval for Lieutenant Stephen Tucker and Sergeant Brian McCarty to Attend CIP Class

- [E\)](#) Sinkhole, Emergency Fix Notification for 111 Aulenbrock Drive (Purchasing, Special Circumstances Form)

5. Monthly Budget Report

- [A\)](#) Monthly Budget Report(s)

6. Old Business

- [A\)](#) Discussion and Consideration of Draft Rental Inspection Code Ordinance (Request by Alderwoman Williams)

7. City Clerk, City Administration Matters (Lindsay Kellum)

- [A\)](#) City Administration Update (City Clerk)
- [B\)](#) Monthly Privilege License Report Update (Scott Maugh, Deputy Clerk)
- [C\)](#) Delinquent Privilege Licenses, Enforcement (Draft Letter from Legal)
- [D\)](#) Request for Flex Spending Cafeteria Plan Account Replenishment, Supplemental Benefits

8. Court Clerk, Municipal Court Department (Stephanie Gerlach)

- [A\)](#) Court Services, Monthly Update (Stephanie Burton, Court Clerk)

9. Grant Administrator, Grant Status Updates (Ruth Marie Stogner)

- [A\)](#) General Update, Grant Administration (Ruth Stogner, Grant Administrator)

10. Building Official, Planning and Zoning Matters (William Hall)

- [A\)](#) November 28th, 2023, Planning and Zoning Board Meeting
- [B\)](#) Discussion and Consideration of AT&T Conditional Use
- [C\)](#) Discussion and Consideration of AT&T Site Plan
- [D\)](#) Discussion and Consideration of Magnolia District Conditional Use
- [E\)](#) Discussion and Consideration of Magnolia District Site Plan
- [F\)](#) Discussion and Consideration of Puckett Machinery Conditional Use
- [G\)](#) Discussion and Consideration of Puckett Machinery Site Plan

11. Public Works Department (Chris Buckner)

- [A\)](#) Request for Approval to Purchase of 42" Brush Cutter
- [B\)](#) Request to Approve Crystal Clean Contract Amendment

- [C\)](#) Request for Acceptance of Ridgefield Subdivision Street Light Expenses
- [D\)](#) Request to Approve UPS Install at MDOT Signals, MOU with MDOT
- [E\)](#) Request to Repair Various Sinkholes, Bradshaw Crossing Subdivision

12. Police Chief, Police Department Matters (Chief Barry Hale)

- [A\)](#) General Law Enforcement Updates (Chief Barry Hale)
- [B\)](#) Requesting the Mayor and Board of Alderman Approve the Motorola Solutions Contract for E911 CAD Dispatch
- [C\)](#) Memo Requesting the Approval for Three Motorola Control Stations for Dispatch
- [D\)](#) Requesting the Mayor and Board of Alderman Approve the Purchase of Two Motorola Consoles and Backup Radio.

13. Public Comment

14. Closed Session to Determine Need for Executive Session

- A) Request for Consideration to Hire Maintenance Worker II, Public Works

15. Adjourn

WALTER C. MORRISON, IV
MAYOR

We the undersigned Aldermen acknowledge that we were given notice of said meeting at least three (3) hours in advance thereof by a copy of this notice.

Alderwoman Bates _____

Alderman Powell _____

Alderman Slay _____

Alderman Taylor _____

Alderwoman Williams _____

ATTEST: _____ DATE: _____

LINDSAY D. KELLUM
CITY CLERK

[Seal]

City of Gluckstadt

Application for Conditional Use

Subject Property Address: Church Rd, Gluckstadt
 Parcel #: 082E-15-001/04.02

Owner: S&D Realty, LLC Applicant: S&D Realty, LLC
 Address: 115 Honours LN Address: 115 Honours Lane
Madison, MS Madison, MS

Phone #: 601-559-8161 Phone #: 601-559-8161
 E-Mail: ~~dbola@a~~ E-Mail: dbola14@gmail.com
dbola14@gmail.com

Current Zoning District: C-2
 Acreage of Property (if applicable): 3.47 acres
 Use sought of Property: Retail / Office / Sports complex

Requirements of Applicant:

1. Letter demonstrating how the proposed use will comply with or otherwise satisfy the requirements for granting a Conditional Use pursuant to Section 804.01 of the Zoning Ordinance.
2. Copy of written legal description.
3. Additional items may be requested depending on the nature and status of the proposed development or property.
4. \$ 250.00 fee required for processing
5. Site Plan as required in Section 807-810

Requirements for Granting Conditional Use: (Section 805.01, Zoning Ordinance)

A Conditional Use shall not be granted unless satisfactory provisions and arrangements have been made concerning all the following:

- (a). Ingress and egress to property and proposed structures
- (b). Off-Street parking and loading areas
- (c). Refuse and service areas
- (d). Utilities, with reference locations, availability, and compatibility.
- (e). Screening and buffering with reference to type, dimensions, and character.
- (f). Required yards and other open spaces.
- (g). General compatibility with adjacent properties and other properties in the district.
- (h). Any other provisions deemed applicable by the Mayor and Board of Aldermen.

Applicant shall be present at the Planning and Zoning Commission meeting and Mayor and Board of Alderman meeting. Documents shall be submitted thirty (30) days prior to the Planning and Zoning Commission meeting.

City of Gluckstadt

Application for Site Plan Review

Subject Property Address: Church Rd,
Parcel #: 082E-15-001 / 04.02

Owner: TICO Investments
Address: Danny Bolanos

Applicant: David Wealdridge
Address: 464 Church Rd
Suite 700 Madison

Phone #: 601-559-8161
E-Mail: dbola14@gmail.com

Phone #: 601-209-8665
E-Mail: wealdridgearchitecture@yahoo.com

Current Zoning District: C-2
Acreage of Property (If applicable): 3.47 ac
Use sought of Property: Retail / Recreation

Requirements of Applicant:

- 1. Copy of written legal description.
- 2. Site Plan as required in Section 807-810
- 3. Color Rendering & Elevations at time of submittal

Requirements for Site Plan Submittal (Section 808, Zoning Ordinance)

Nine (9) copies of the site plan shall be prepared and submitted to the Zoning Administrator. Digital copies are acceptable. Three (3) hard copies are required.

Site Plan Specifications (Section 809, Zoning Ordinance)

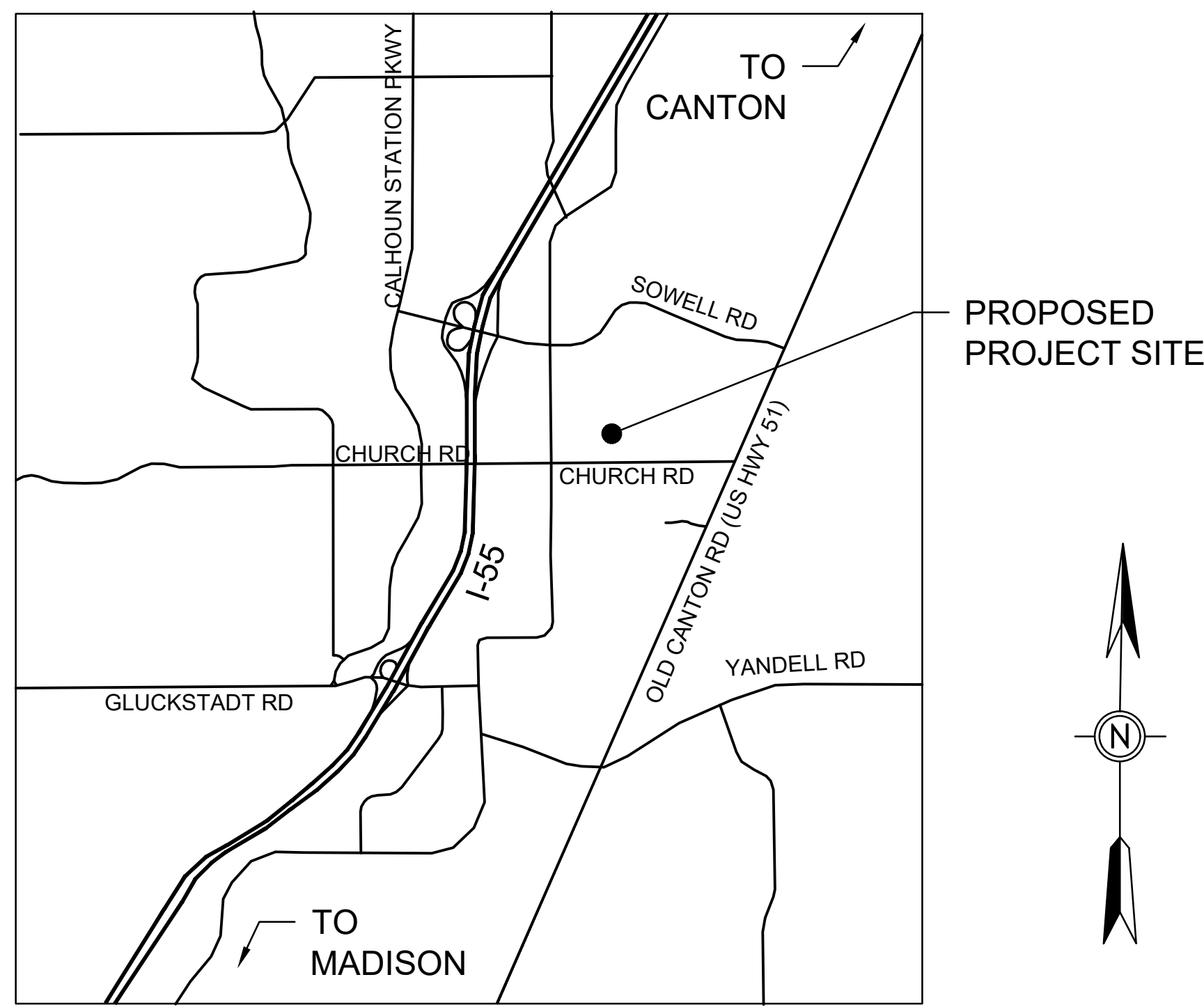
- A. Lot Lines (property lines)
- B. Zoning of the adjacent lots
- C. The names of owners of adjacent lots
- D. Rights of way existing and proposed streets, including streets shown on the adopted Throughfares plan
- E. Access ways, curb cuts, driveways, and parking, including number of parking spaces to be provided
- F. All existing and proposed easements
- G. All existing and proposed water and sewer lines. Also, the location of all existing and proposed fire hydrants.
- H. Drainage plan showing existing and proposed storm drainage facilities. The drainage plan shall indicate adjacent off site drainage courses and projected storm water flow rates from off-site and on-site sources.
- I. Contours at vertical intervals of five (5) feet or less.
- J. Floodplain designation, according to FEMA Maps.
- K. Landscaped areas and planting screens.

MAGNOLIA COMMONS

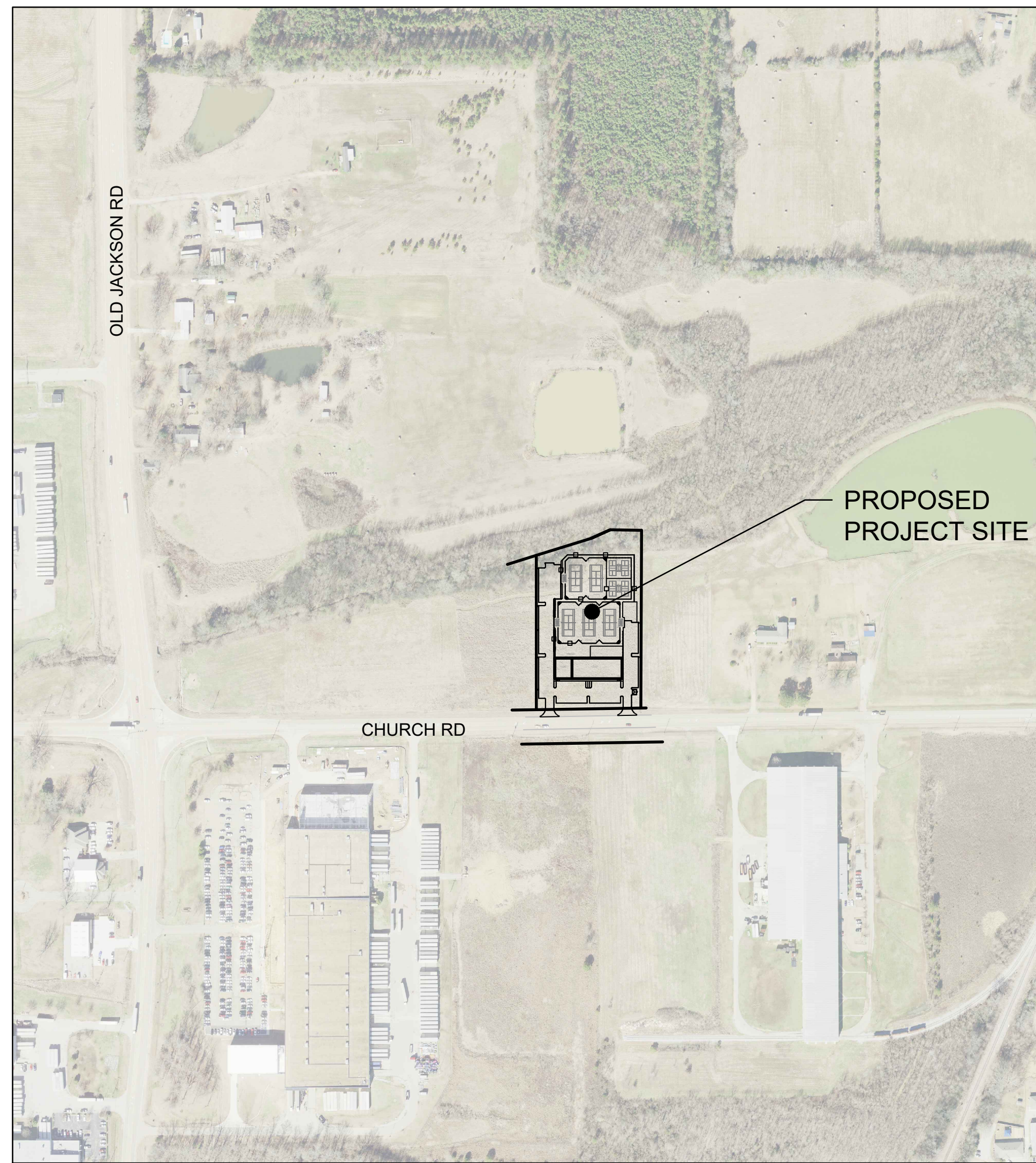
A PROPOSED COMMERCIAL SITE DEVELOPMENT

CHURCH ROAD

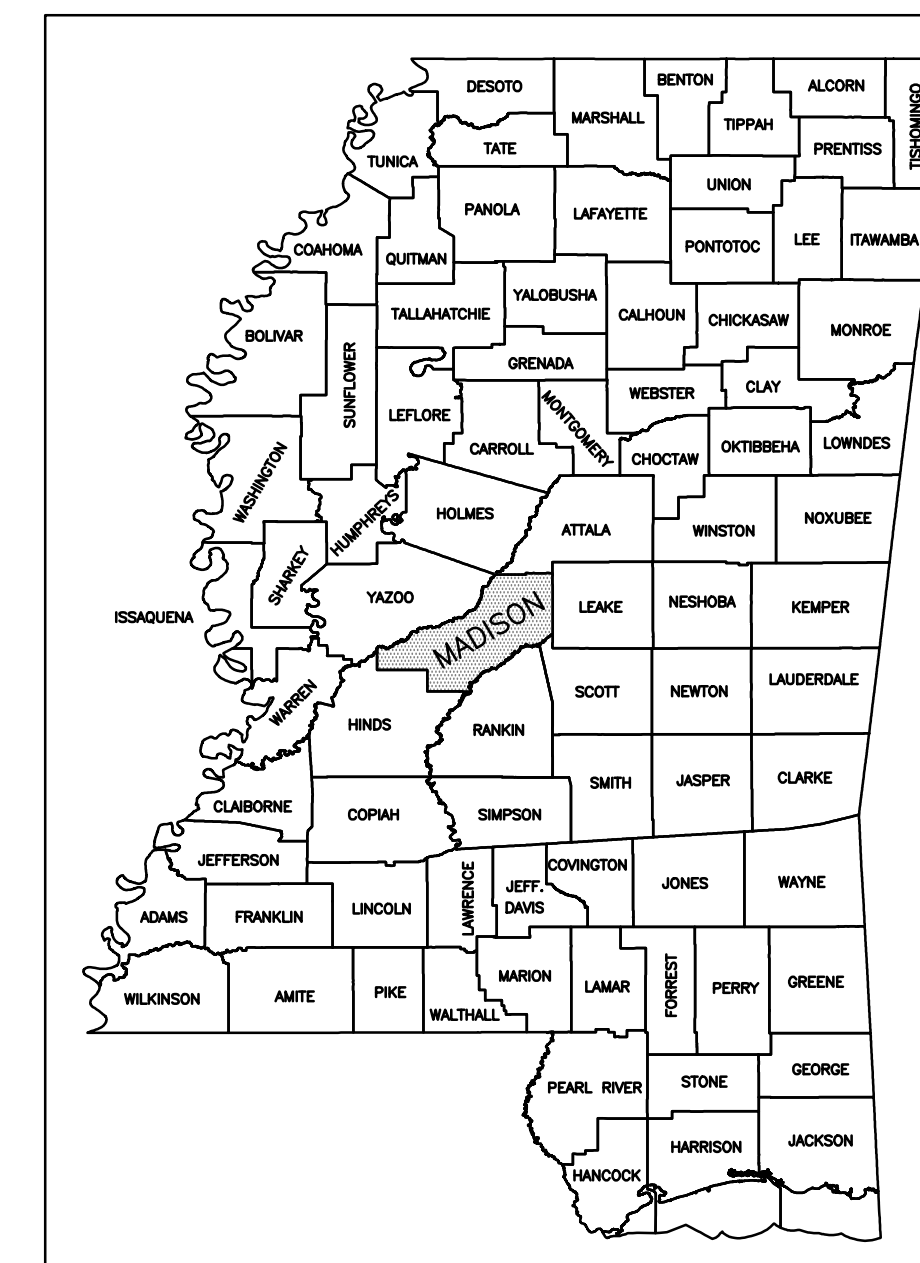
GLUCKSTADT, MS 39110



CITY LOCATION
SCALE: NONE



STREET LOCATION
SCALE: 1"=300'



STATE LOCATION
(MADISON COUNTY)

- TABLE OF CONTENTS**
1. COVER
 2. EXISTING CONDITIONS & DEMO PLAN
 3. SITE PLAN
 4. UTILITY PLAN
 5. GRADING PLAN
 6. EROSION CONTROL PLAN (SWPPP)
 7. SITE DETAILS
 8. UTILITY DETAILS
 9. PUMP STATION DETAILS

DEAN
ENGINEERING SOLUTIONS, INC.
4780 I-55 NORTH, SUITE 100-4
JACKSON, MS 39211
601-557-2002 WWW.DEANESI.COM

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| No. | Description | Date |
|-----|---------------------------------|------------|
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

OWNER:
DANNY BOLANOS
115 HOURS LANE,
MADISON MS 39110

PROJECT TITLE: MAGNOLIA COMMONS
SHEET TITLE: COVER
SITE DEVELOPMENT

JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

SHEET NUMBER:
1



Know what's below
Call before you dig

SURVEY NOTES:

- EXISTING SURVEY INFORMATION SHOWN THIS SHEET PROVIDED BY: RICHARD T. TOLBERT. PLS. 100 OLD ORCHARD RD, MADISON, MS 39110. DATE OF SURVEY: 2022-05-07
- LOCATION OF UNDERGROUND UTILITIES & STRUCTURES OF ANY TYPE MAY NOT BE COMPLETE OR EXACT. FOR MORE POSITIVE LOCATIONS CONTACT MISSISSIPPI ONE CALL SYSTEM INC. (TELEPHONE NO. 811) OR OTHER LOCAL AUTHORITIES TO LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL VERIFY THE DEPTH AND LOCATION OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING CONSTRUCTION. ALL NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW AND APPROVAL BY ENGINEER PRIOR TO CONSTRUCTION. THIS PLAN IS DIAGRAMMATIC AND REPRESENTS THE APPROXIMATE LOCATION OF UTILITIES UNLESS SPECIFICALLY DIMENSIONED.

DEAN
ENGINEERING SOLUTIONS, INC.
4780 U.S. NORTH, SUITE 100-4
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| No. | Description | Date |
|-----|---------------------------------|------------|
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

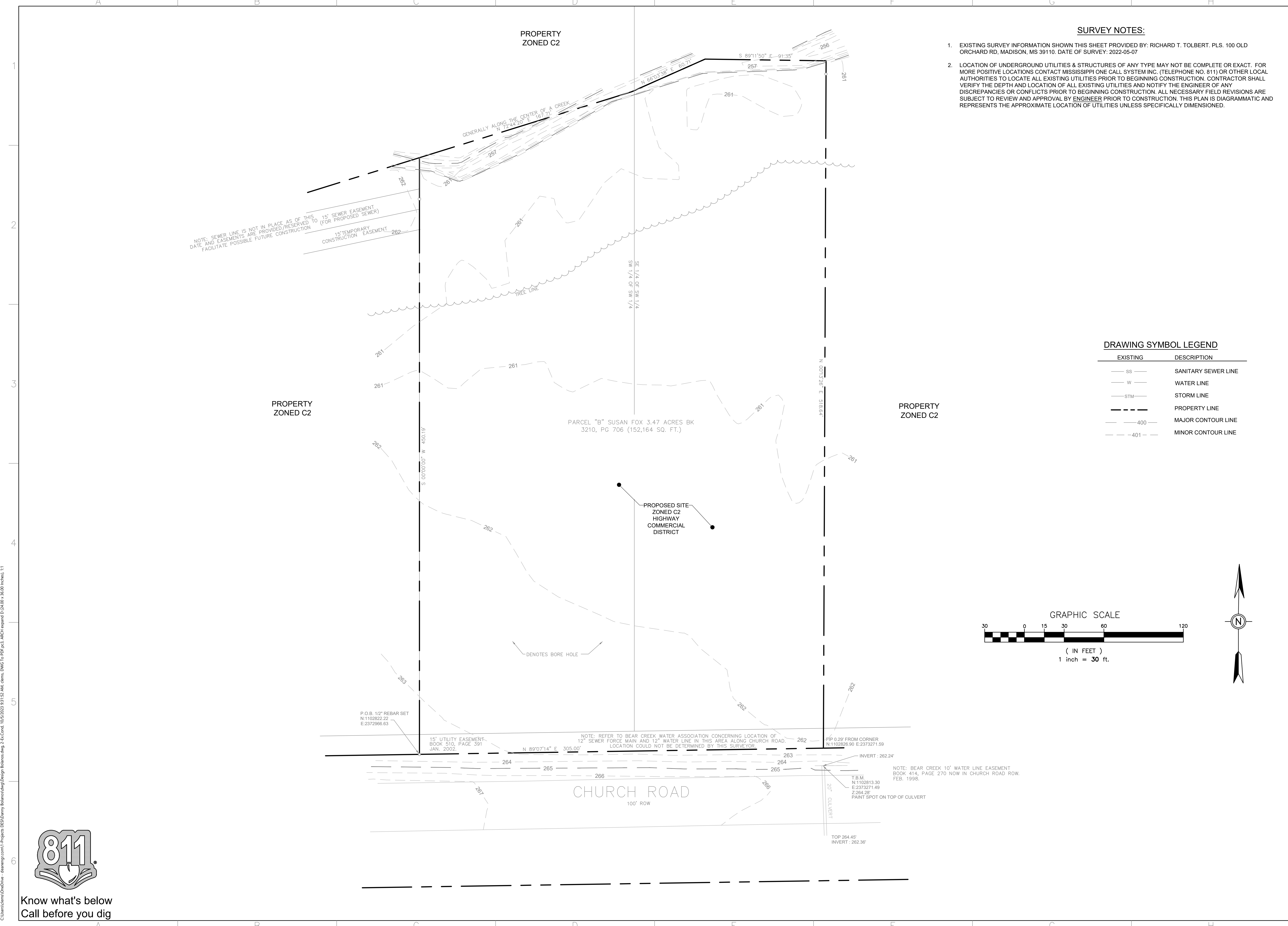
DRAWING ISSUED

OWNER:
DANNY BOLANOS
115 HONOURS LANE,
MADISON MS 39110

PROJECT TITLE: **MAGNOLIA COMMONS**
SHEET TITLE:
EXISTING CONDITIONS & DEMO PLAN
SITE DEVELOPMENT

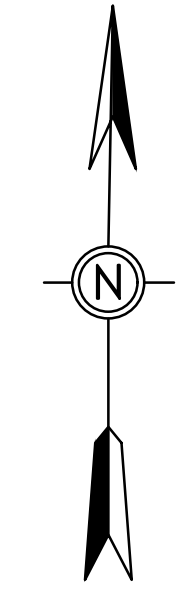
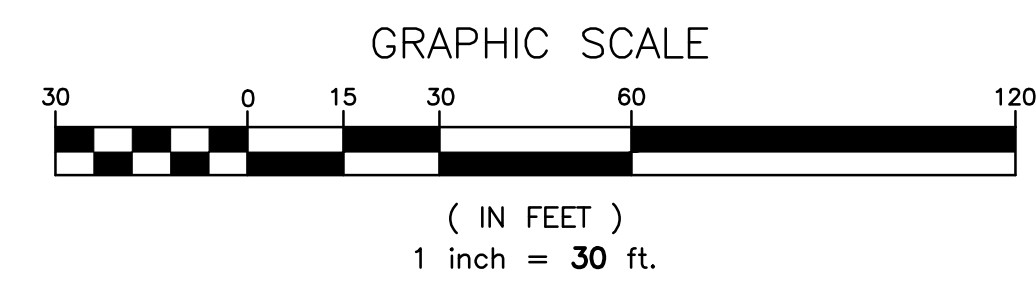
JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

SHEET NUMBER:
2



DRAWING SYMBOL LEGEND

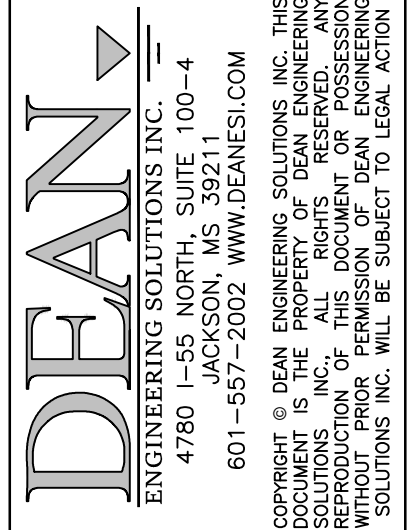
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| — SS — | SANITARY SEWER LINE |
| — W — | WATER LINE |
| — STM — | STORM LINE |
| --- | PROPERTY LINE |
| — 400 — | MAJOR CONTOUR LINE |
| - - - 401 - - - | MINOR CONTOUR LINE |



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| No. | Description | Date |
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| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

OWNER:
DANNY BOLANOS
115 HONOURS LANE,
MADISON MS 39110

PROJECT TITLE: **MAGNOLIA COMMONS**
SHEET TITLE:
SITE PLAN
SITE DEVELOPMENT

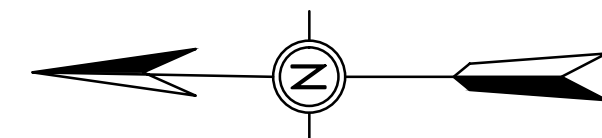
JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

SHEET NUMBER:
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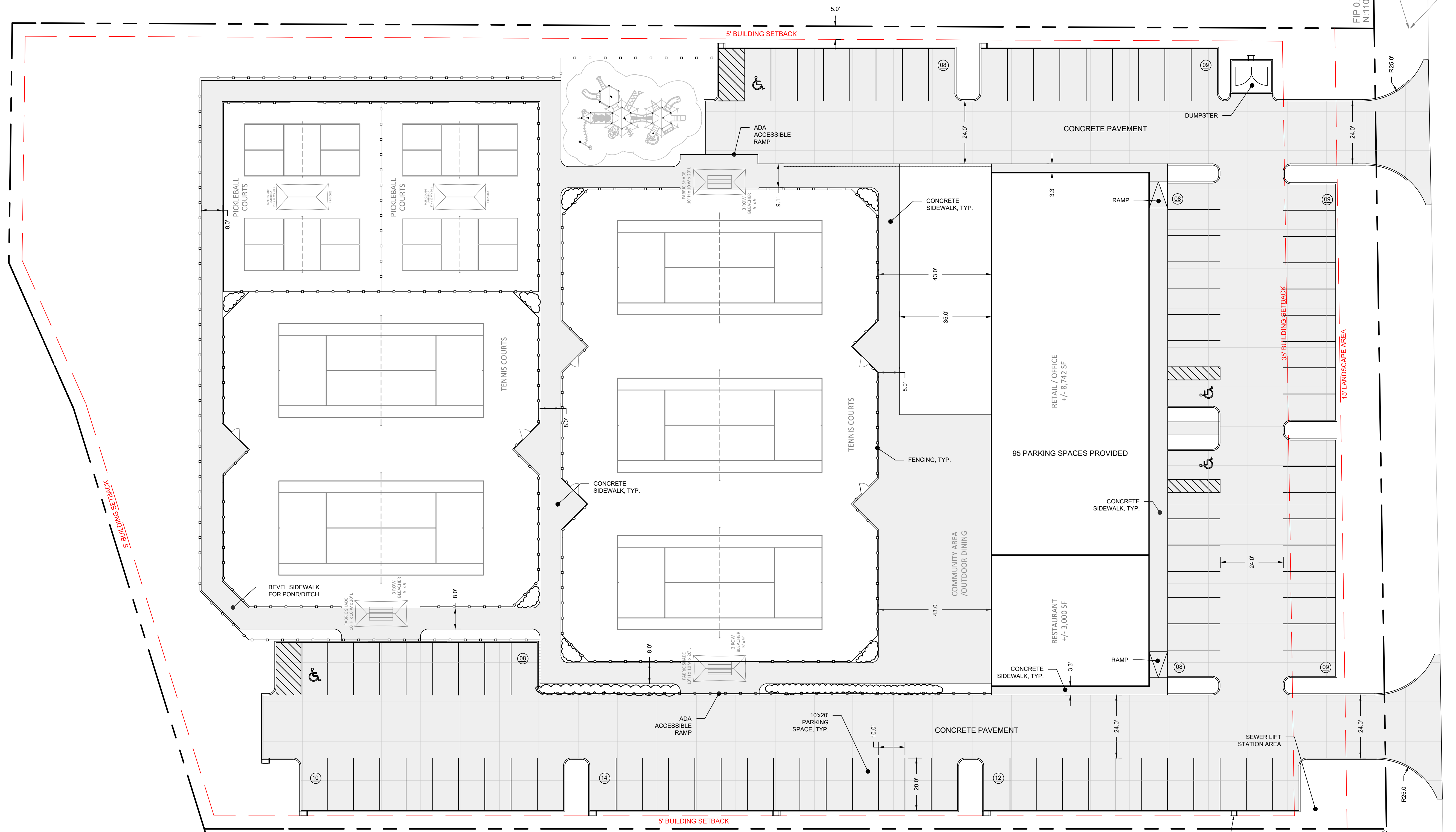
GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.



PROPOSED GROSS LOT COVERAGE OF BUILDINGS AND STRUCTURES
BUILDING SIZE: 11,742 SF TOTAL (EACH SINGLE STORY)



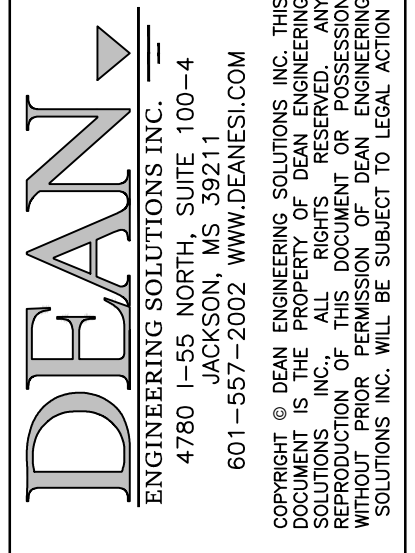
SITE PLAN NOTES

1. ADA HANDICAPPED (HC) PARKING: REFER TO THE ADA HC DETAILS FOR DIMENSIONS AND SPECIFICATIONS ON REGULAR HC AND VAN ACCESSIBLE PARKING REQUIREMENTS. A MIN. OF 2 SPACES SHALL BE RESERVED FOR HC PARKING, AND A MIN. OF ONE SHALL BE VAN ACCESSIBLE. GRADES ACROSS ADA PARKING SHALL NOT EXCEED 2.0% SLOPE IN ANY DIRECTION
2. STRIPING: ALL PARKING SPACE STRIPING SHALL BE 4" WIDE STRIPES, WHITE TRAFFIC PAINT.
3. SIDEWALKS: SHALL BE MIN. 5' WIDE TYPICALLY, EXCEPT WHERE SPECIFIED OTHERWISE AND SHALL BE LIGHT-DUTY CONCRETE PAVEMENT, 4" THICK, MIN. SLOPED AT 2.0% MAX. AWAY FROM BUILDING.
4. DIMENSIONS: ALL DIMENSIONS REFER TO FACE OF CURB UNLESS OTHERWISE NOTED.
5. CONCRETE JOINTS: JOINTS SHALL BE SPACED ON 10FT x 10FT SQUARE GRID PATTERN TYPICAL. JOINTS SHOULD FORM PANELS THAT ARE APPROXIMATELY SQUARE WITH THE LONGEST PANEL DIMENSION NO MORE THAN 1.25 TIMES THE SHORTEST PANEL DIMENSION. JOINTS SHOULD INTERSECT RADIUSES & OTHER STRUCTURES AT A NEAR PERPENDICULAR ANGLE, OR HAVE A ±18° SEGMENT THAT HITS PERPENDICULARLY. CONCRETE JOINT SPACING, REINFORCEMENT AND LAYOUT SHALL BE DESIGNED IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE'S "GUIDE FOR THE DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS" - ACI 309. SEE DETAILS FOR ADDITIONAL PAVING AND JOINT REQUIREMENTS. CONTRACTOR SHALL SUBMIT A SHOP DRAWING FOR REVIEW SHOWING PROPOSED SAW-JOINT PATTERNS, DIMENSIONS, LOCATIONS OF CONSTRUCTION-JOINTS, ISOLATION-JOINTS AND EXPANSION-JOINTS, AND CONCRETE MIX DESIGN PROPERTIES.



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| No. | Description | Date |
|-----|---------------------------------|------------|
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

OWNER:
DANNY BOLANOS
115 HONOURS LANE,
MADISON MS 39110

PROJECT TITLE: **MAGNOLIA COMMONS**
SHEET TITLE:
UTILITY PLAN
SITE DEVELOPMENT

JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

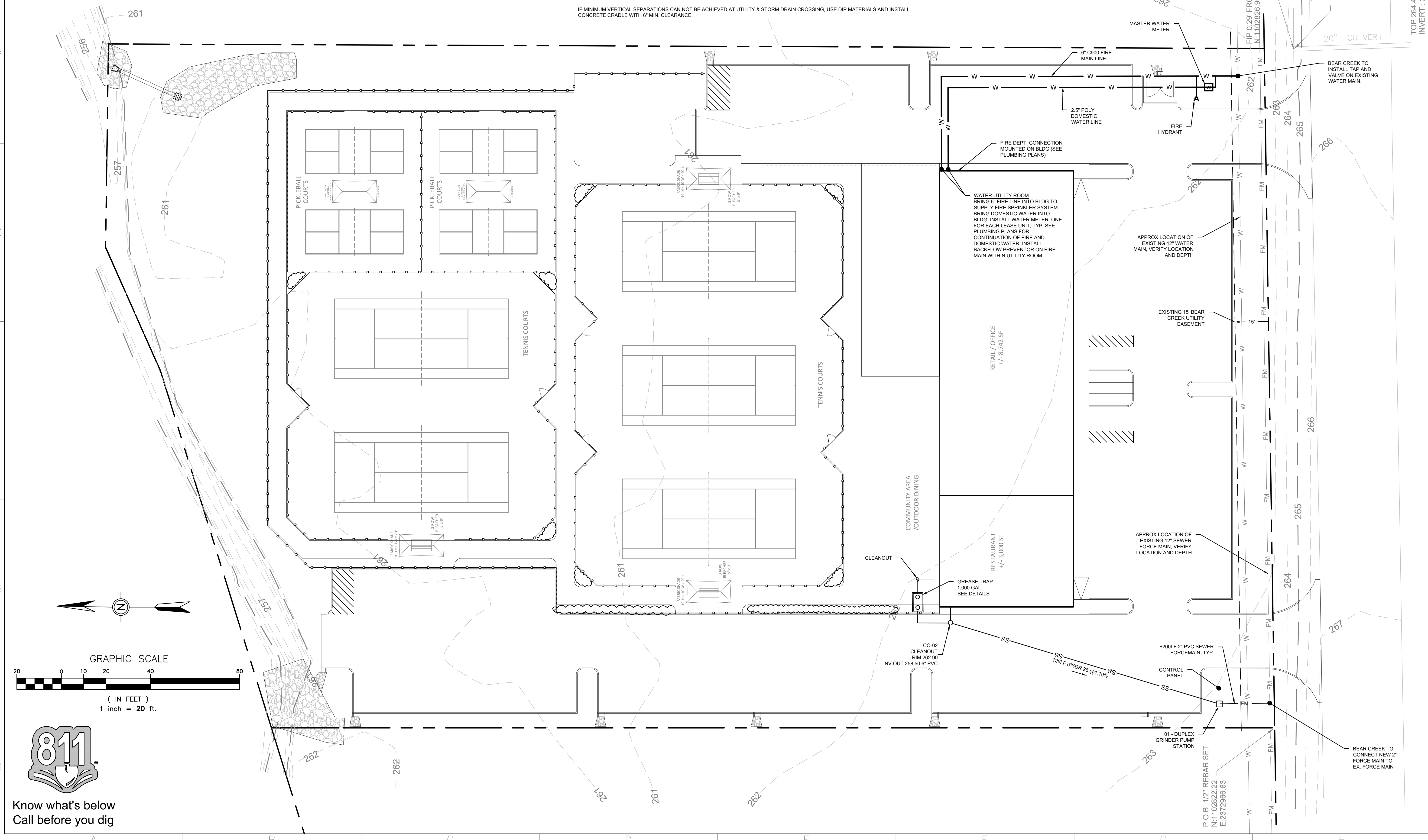
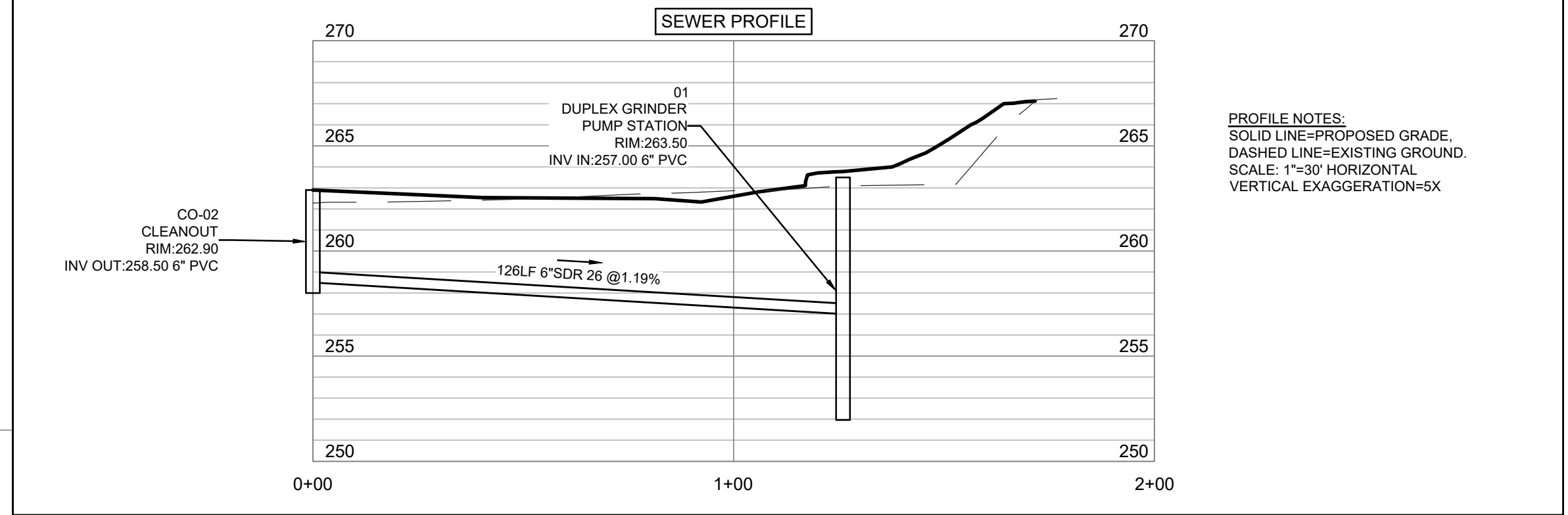
SHEET NUMBER:
4

DRAWING SYMBOL LEGEND

| EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|---------------------|
| — FM — | — FM — | SEWER FORCE MAIN |
| — SS — | — SS — | SANITARY SEWER LINE |
| — W — | — W — | WATER LINE |

UTILITY PLAN NOTES

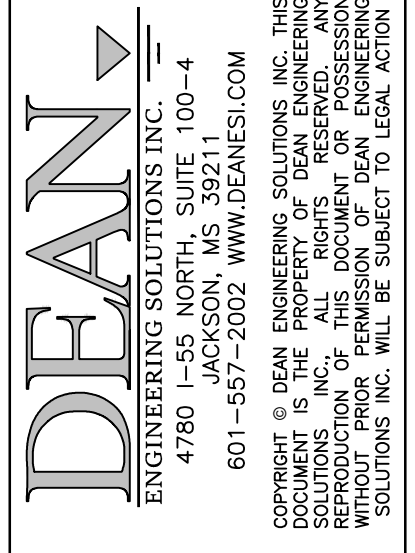
- BEAR CREEK COORDINATION:** CONTRACTOR SHALL COORDINATE WITH BEAR CREEK ALL WATER AND SEWER CONSTRUCTION IN ROW. BEAR CREEK SHALL INSTALL THE WATER INFRASTRUCTURE FROM THE EXISTING CONNECTION UP TO AND INCLUDING THE MASTER WATER METER. BEAR CREEK SHALL INSTALL THE PROPOSED FORCE MAIN CONNECTION TO EXISTING FORCE MAIN AND LEAVE A STUB OUT FOR CONTRACTOR.
 - DUPLEX GRINDER PUMP STATION:** PUMP STATION SHALL BE INSTALLED PER BEAR CREEK WATER ASSOCIATION CONSTRUCTION STANDARDS. SEE SPECIFICATIONS AND DETAILS FOR ADDITIONAL CONSTRUCTION AND PERFORMANCE REQUIREMENTS.
 - GREASE TRAP:** CONTRACTOR SHALL INSTALL GREASE TRAP AND CONNECT TO NEAREST GRAVITY SEWER DISCHARGE LINE ENSURING STRUCTURE OPERATES PROPERLY AND AS INTENDED VIA GRAVITY FLOW. SEE DETAILS FOR ADDITIONAL CONSTRUCTION REQUIREMENTS. ADJUST INVERTS AS NEEDED TO ENSURE GRAVITY FLOW ACROSS THE STRUCTURE. CONFIRM INVERT ELEVATIONS AND PIPE CONNECTIONS WITH GREASE TRAP MANUFACTURER PRIOR TO FABRICATION AND INSTALLATION.
 - INSPECTIONS:** CONTRACTOR SHALL NOTIFY BEAR CREEK WATER ASSOCIATION TO INSPECT ALL WATER AND SEWER MAINS PRIOR TO PLACEMENT OF BACKFILL.
 - MEP COORDINATION:** THIS PLAN SHOWS WATER & SEWER SERVICES FOR THE SITE UP TO 5' FROM THE BUILDING. REFER TO MECHANICAL, ELECTRICAL, PLUMBING (MEP) PLANS FOR CONTINUATION INTO BUILDING.
 - SEWER CLEANOUTS:** SEE MEP PLANS FOR LOCATION AND ELEVATIONS OF SEWER OUT OF BUILDING. COORDINATE SEWER OUT OF BUILDING WITH CLEANOUTS TO MAIN. INSTALL CLEANOUTS TOPS FLUSH WITH ADJACENT PAVEMENT SURFACE.
 - WATER LINE COVER:** THE WATER LINE SHALL HAVE A MIN. OF 3' GROUND COVER.
 - MINIMUM UTILITY SEPARATION DISTANCES:**
SANITARY SEWER MAINS AND STORM SEWER - 24" VERTICAL
SANITARY SEWER MAINS AND WATER - 10" HORIZONTAL OR 18" VERTICAL
STORM SEWER AND WATER - 18" VERTICAL
- IF MINIMUM VERTICAL SEPARATIONS CAN NOT BE ACHIEVED AT UTILITY & STORM DRAIN CROSSING, USE DIP MATERIALS AND INSTALL CONCRETE CRADLE WITH 6" MIN. CLEARANCE.



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| No. | Description | Date |
|-----|---------------------------------|------------|
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

OWNER:
DANNY BOLANOS
115 HONOURS LANE,
MADISON MS 39110

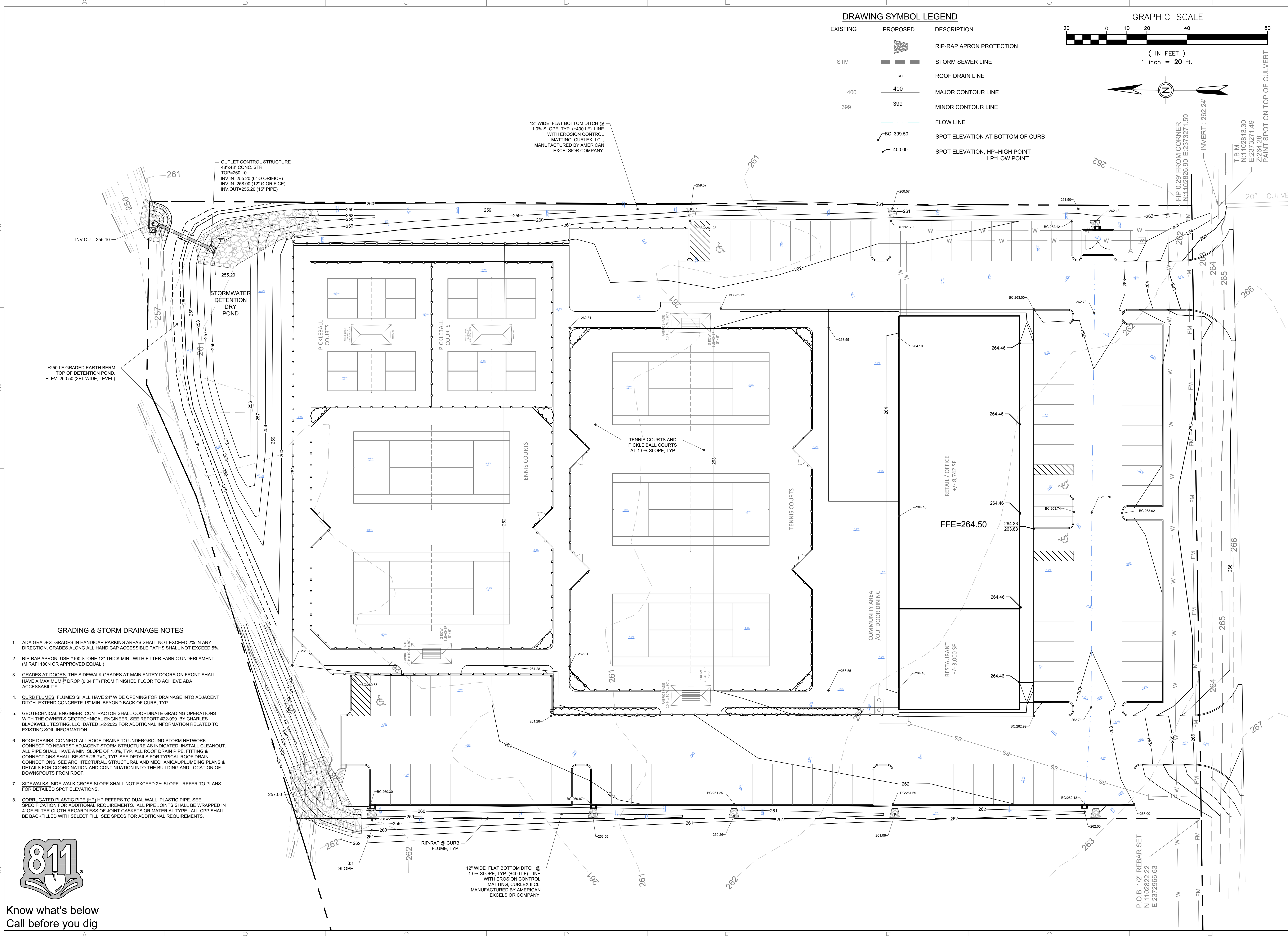
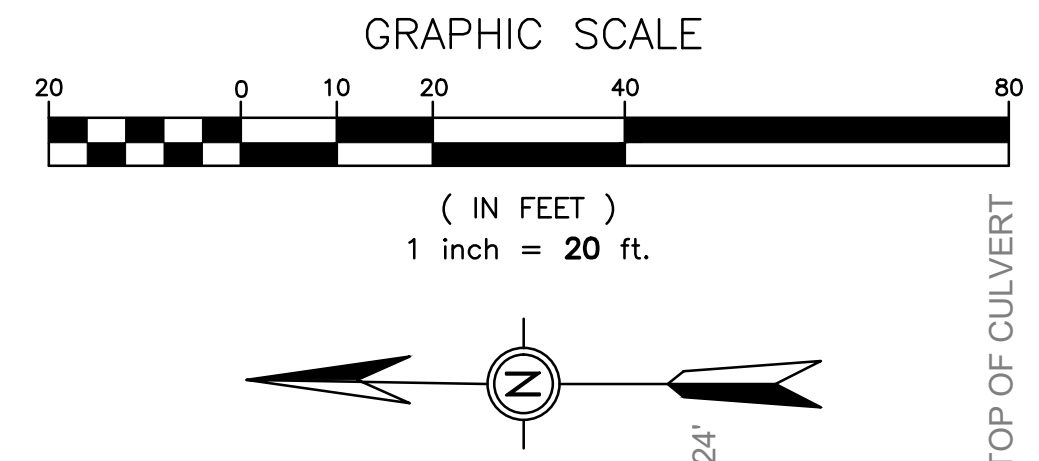
PROJECT TITLE: **MAGNOLIA COMMONS**
SHEET TITLE:
GRADING PLAN
SITE DEVELOPMENT

JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

SHEET NUMBER:
5

DRAWING SYMBOL LEGEND

| EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|---|
| — STM — | | RIP-RAP APRON PROTECTION |
| — 400 — | | STORM SEWER LINE |
| — 399 — | | ROOF DRAIN LINE |
| | | MAJOR CONTOUR LINE |
| | | MINOR CONTOUR LINE |
| | | FLOW LINE |
| | | SPOT ELEVATION AT BOTTOM OF CURB |
| | | SPOT ELEVATION, HP=HIGH POINT LP=LOW POINT |



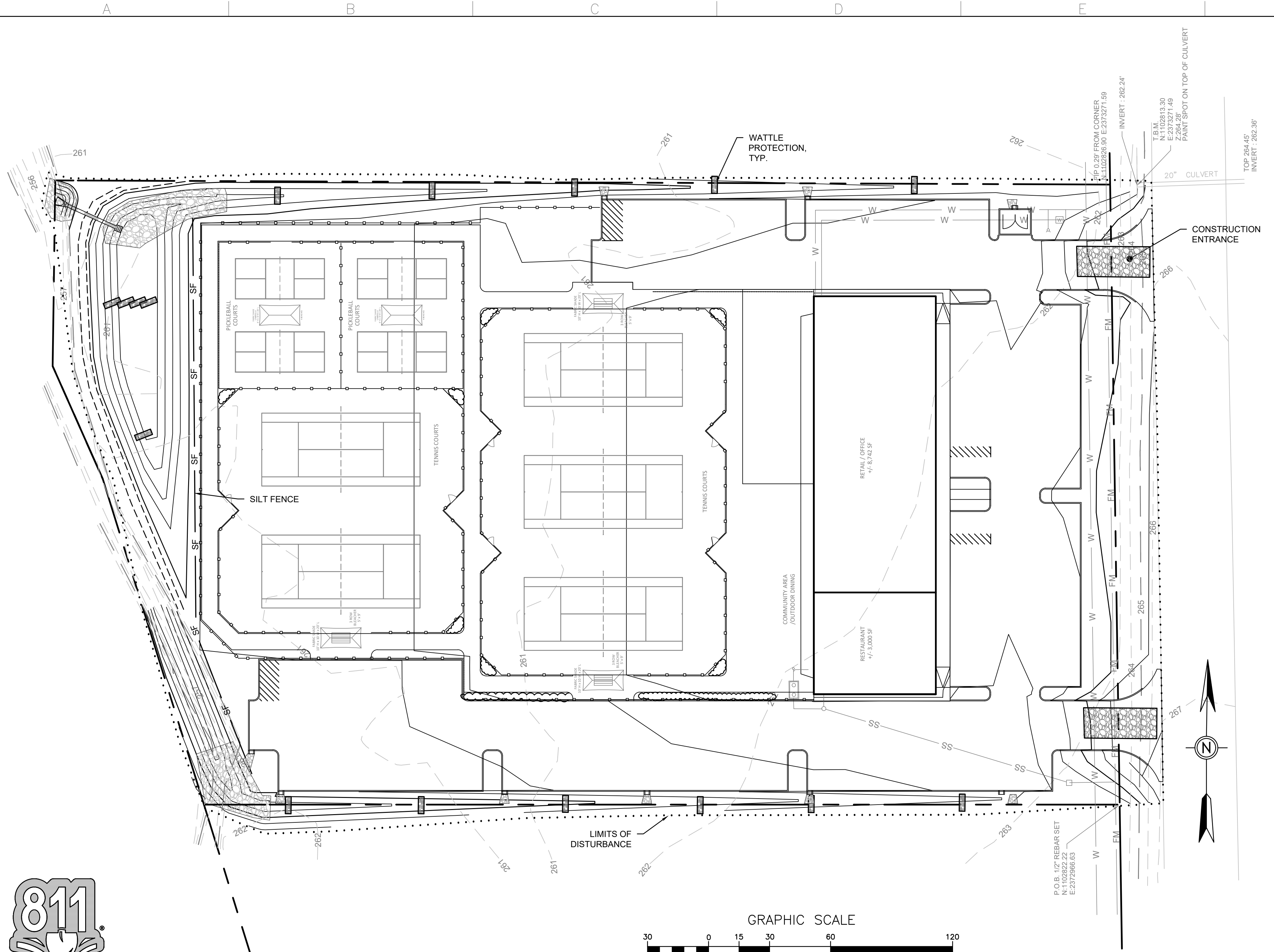
GRADING & STORM DRAINAGE NOTES

- ADA GRADES: GRADES IN HANDICAP PARKING AREAS SHALL NOT EXCEED 2% IN ANY DIRECTION. GRADES ALONG ALL HANDICAP ACCESSIBLE PATHS SHALL NOT EXCEED 5%.
- RIP-RAP APRON: USE #100 STONE 12" THICK MIN., WITH FILTER FABRIC UNDERLAMENT (MIRAFI 160N OR APPROVED EQUAL.)
- GRADES AT DOORS: THE SIDEWALK GRADES AT MAIN ENTRY DOORS ON FRONT SHALL HAVE A MAXIMUM 2" DROP (0.04 FT) FROM FINISHED FLOOR TO ACHIEVE ADA ACCESSIBILITY.
- CURB FLUMES: FLUMES SHALL HAVE 24" WIDE OPENING FOR DRAINAGE INTO ADJACENT DITCH. EXTEND CONCRETE 18" MIN. BEYOND BACK OF CURB, TYP.
- GEOTECHNICAL ENGINEER: CONTRACTOR SHALL COORDINATE GRADING OPERATIONS WITH THE OWNER'S GEOTECHNICAL ENGINEER. SEE REPORT #22-099 BY CHARLES BLACKWELL TESTING, LLC, DATED 5-2-2022 FOR ADDITIONAL INFORMATION RELATED TO EXISTING SOIL INFORMATION.
- ROOF DRAINS: CONNECT ALL ROOF DRAINS TO UNDERGROUND STORM NETWORK. CONNECT TO NEAREST ADJACENT STORM STRUCTURE AS INDICATED. INSTALL CLEANOUT. ALL PIPE SHALL HAVE A MIN. SLOPE OF 1.0%, TYP. ALL ROOF DRAIN PIPE, FITTING & CONNECTIONS SHALL BE SDR-26 PVC, TYP. SEE DETAILS FOR TYPICAL ROOF DRAIN CONNECTIONS. SEE ARCHITECTURAL, STRUCTURAL AND MECHANICAL/PLUMBING PLANS & DETAILS FOR COORDINATION AND CONTINUATION INTO THE BUILDING AND LOCATION OF DOWNSPOUTS FROM ROOF.
- SIDEWALKS: SIDE WALK CROSS SLOPE SHALL NOT EXCEED 2% SLOPE. REFER TO PLANS FOR DETAILED SPOT ELEVATIONS.
- CORRUGATED PLASTIC PIPE (HP) HP REFERS TO DUAL WALL, PLASTIC PIPE. SEE SPECIFICATION FOR ADDITIONAL REQUIREMENTS. ALL PIPE JOINTS SHALL BE WRAPPED IN 4" OF FILTER CLOTH REGARDLESS OF JOINT GASKETS OR MATERIAL TYPE. ALL CPP SHALL BE BACKFILLED WITH SELECT FILL, SEE SPECS FOR ADDITIONAL REQUIREMENTS.



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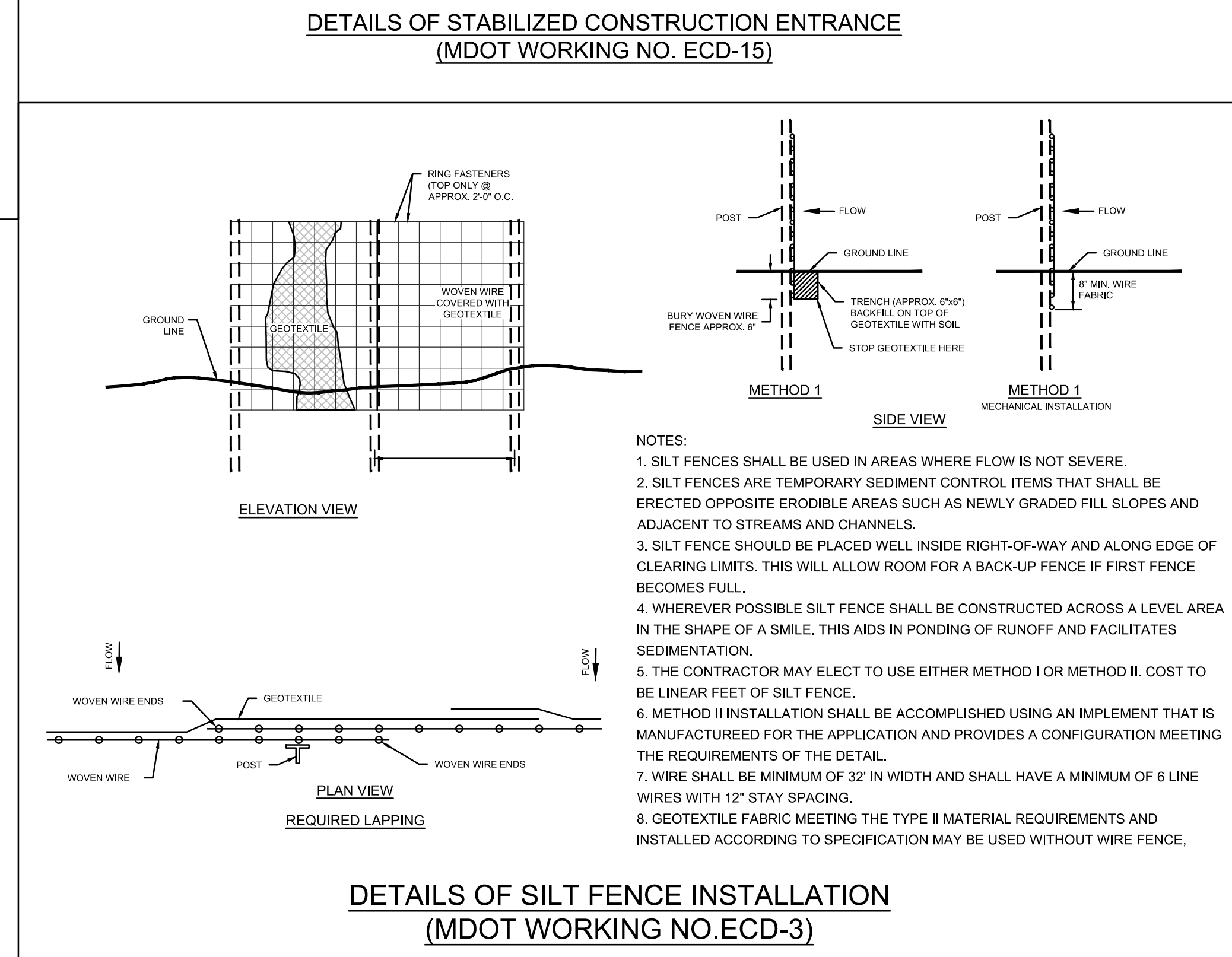
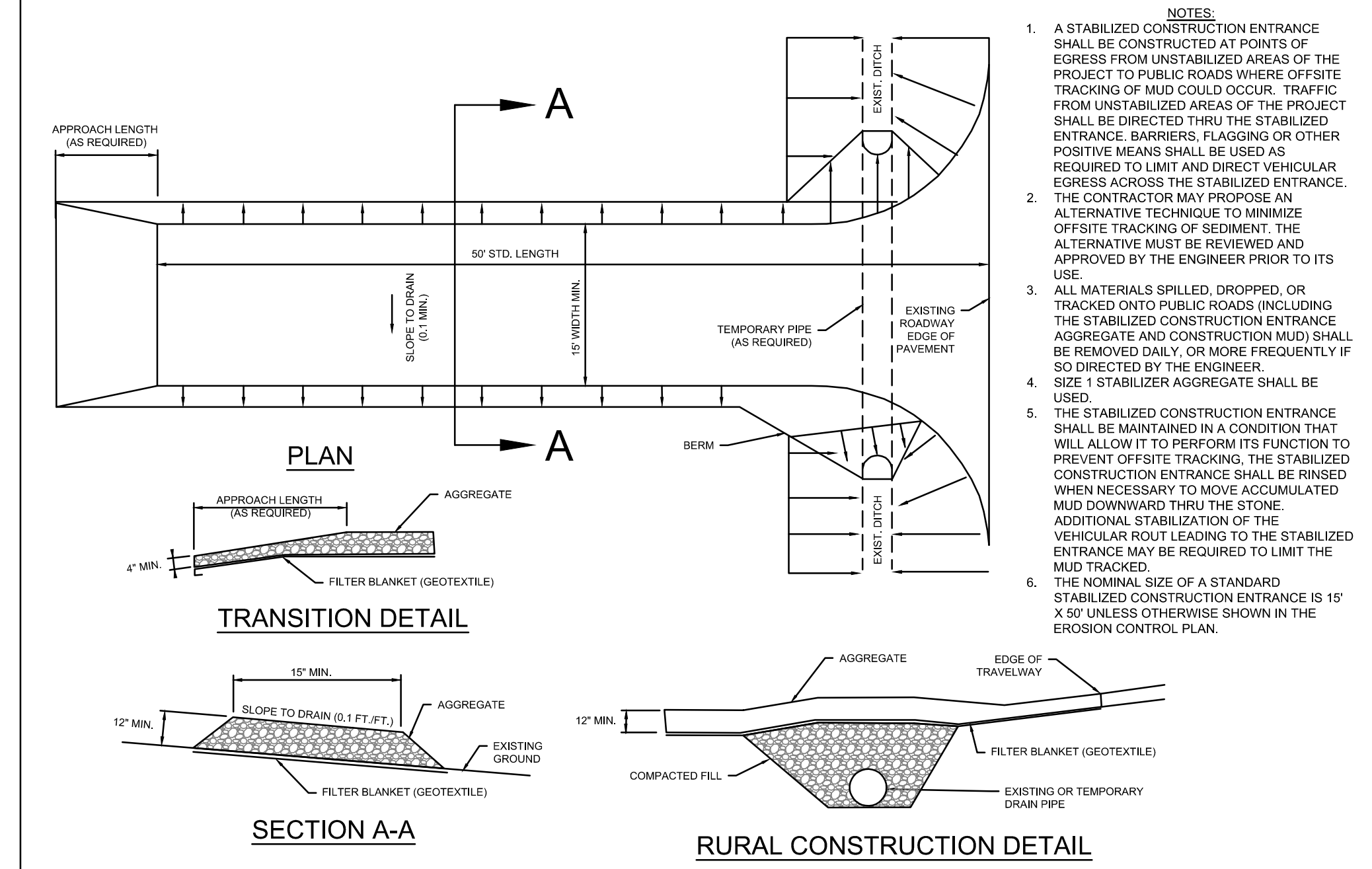
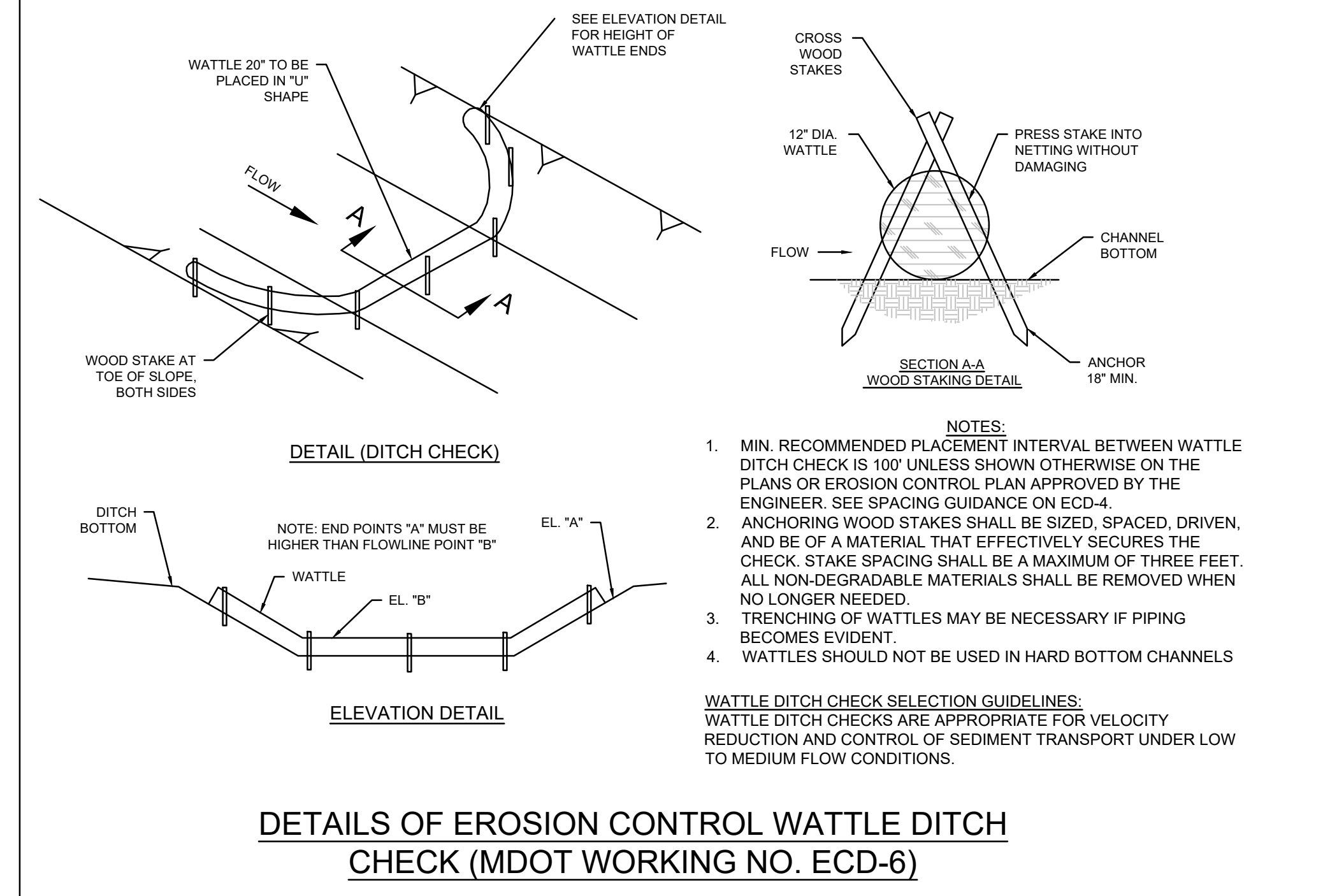
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EROSION CONTROL PLAN NOTES

- TOTAL DISTURBED SITE AREA = 3.70 AC.
- VEGETATIVE CONTROLS:** A COMBINATION OF TEMPORARY AND PERMANENT GRASSING WILL BE USED TO PROTECT SLOPES AS CONSTRUCTION PROGRESSES. REFER TO VEGETATION SPECIFICATIONS FOR DETAILS. SHOULD A DISTURBED AREA BE LEFT UNDISTURBED FOR 14 DAYS OR MORE, TEMPORARY OR PERMANENT VEGETATION SHALL BE PLACED IMMEDIATELY.
- STRUCTURAL CONTROLS:** INSTALL CONSTRUCTION ENTRANCES, DIVERSION DITCHES, WATTLE CHECK DAMS, SILT FENCE AND ALL OTHER STRUCTURAL BMPs AS SHOWN BELOW. PERMANENT EROSION CONTROL BMPs AND STRUCTURAL BMPs SHOULD BE PLACED AS SOON AS POSSIBLE TO ENSURE FINAL STABILIZATION OF THE SITE.
- WATTLE CHECK DAMS:** SILT FENCE AND HAY BALES ARE NOT ACCEPTABLE FORMS OF CHECK DAMS WITHIN TEMPORARY DIVERSION DITCHES, SWALES OR OTHER AREAS OF CONCENTRATED FLOW. CONTRACTOR SHALL USE SAND BAGS OR STONE DAMS TO CHECK FLOW. WATTLES MAY ALSO BE USED WHERE LOWER FLOWS/SMALLER DRAINAGE AREAS OCCUR.
- HOUSEKEEPING & MAINTENANCE PRACTICES:** ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. NON-FUNCTIONING EROSION CONTROLS SHALL BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL CONTROLS WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW. WALK THROUGH INSPECTIONS ARE RECOMMENDED BEFORE ANTICIPATED STORM EVENTS TO VERIFY THE INTEGRITY OF EROSION CONTROL MEASURES AND TO DETERMINE IF ADDITIONAL MEASURES ARE NEEDED. SEDIMENT BASINS WILL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT REACHES 2.0 FEET BELOW THE TOP OF THE RISER, AND/OR WHEN THE CAPACITY HAS BEEN REDUCED BY 50%. SILT FENCE SHALL BE CLEANED OUT WHEN SEDIMENT REACHES 1/3 TO 1/2 OF THE HEIGHT OF THE FENCE. MAINTENANCE AND REPAIR OF EQUIPMENT SHALL BE PERFORMED OFF-SITE. MATERIAL WASH OUT SHALL OCCUR EITHER OFF-SITE OR WITHIN DESIGNATED WASH OUT AREAS.
- POST-CONSTRUCTION CONTROL MEASURES:** AS CONSTRUCTION IS COMPLETED, PERMANENT VEGETATIVE GROWTH SHALL BE ESTABLISHED ON DISTURBED SOILS TO IMPROVE SOIL STABILITY AND PROVIDE A BUFFER ZONE FOR LOOSE MATERIAL. LINED DITCHES SHALL BE INSTALLED AS SPECIFIED IN THE EROSION CONTROL SEQUENCE TO REDUCE EROSION IN CONCENTRATED FLOW AREAS AND RIP-RAP WILL BE PLACED AS SPECIFIED TO DISSIPATE FLOW ENERGY AND REDUCE FLOW VELOCITY. TEMPORARY BMPs MUST BE REMOVED FROM THE SITE WHEN THEY ARE NO LONGER NEEDED.

DRAWING SYMBOL LEGEND

| PROPOSED | DESCRIPTION |
|----------|-----------------------------------|
| | SILT FENCE PROTECTION |
| | LIMITS OF DISTURBANCE |
| | WATTLE CHECK DAM/INLET PROTECTION |



Section 4, Item A)

DEAN
ENGINEERING SOLUTIONS, INC.
4780 I-55 NORTH, SUITE 100-4
JACKSON, MS 39211
601-557-2002 WWW.DEANESI.COM

REGISTERED PROFESSIONAL ENGINEER
STATE OF MISSISSIPPI
20057

10-05-2023

DRAWING ISSUED

OWNER: DANNY BOLANOS
115 HONOURS LANE,
MADISON MS 39110

PROJECT TITLE: MAGNOLIA COMMONS
SHEET TITLE: EROSION CONTROL PLAN (SWPPP)
SITE DEVELOPMENT

| No. | Description | Date |
|-----|---------------------------------|------------|
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

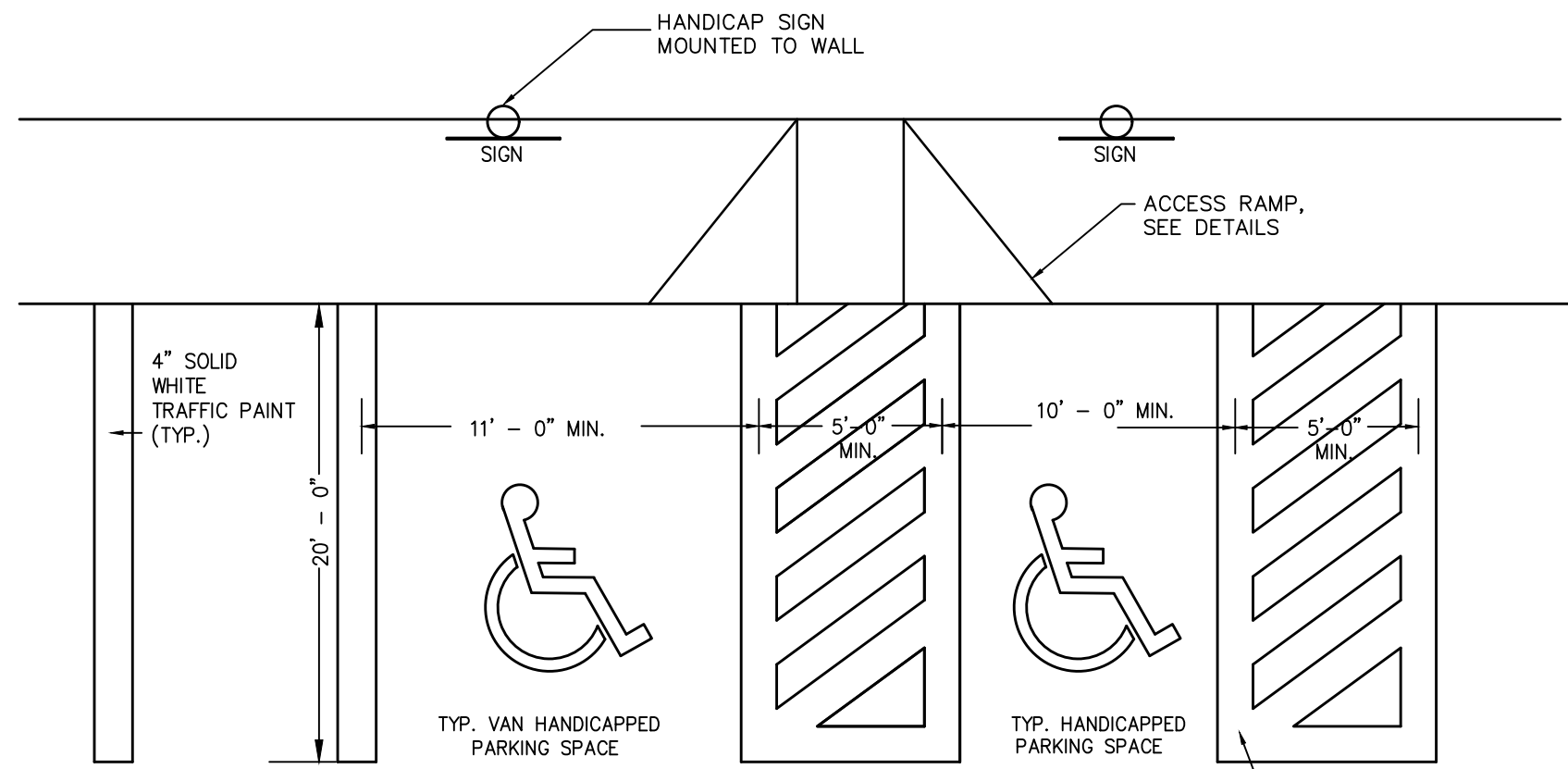
OWNER: DANNY BOLANOS
115 HONOURS LANE,
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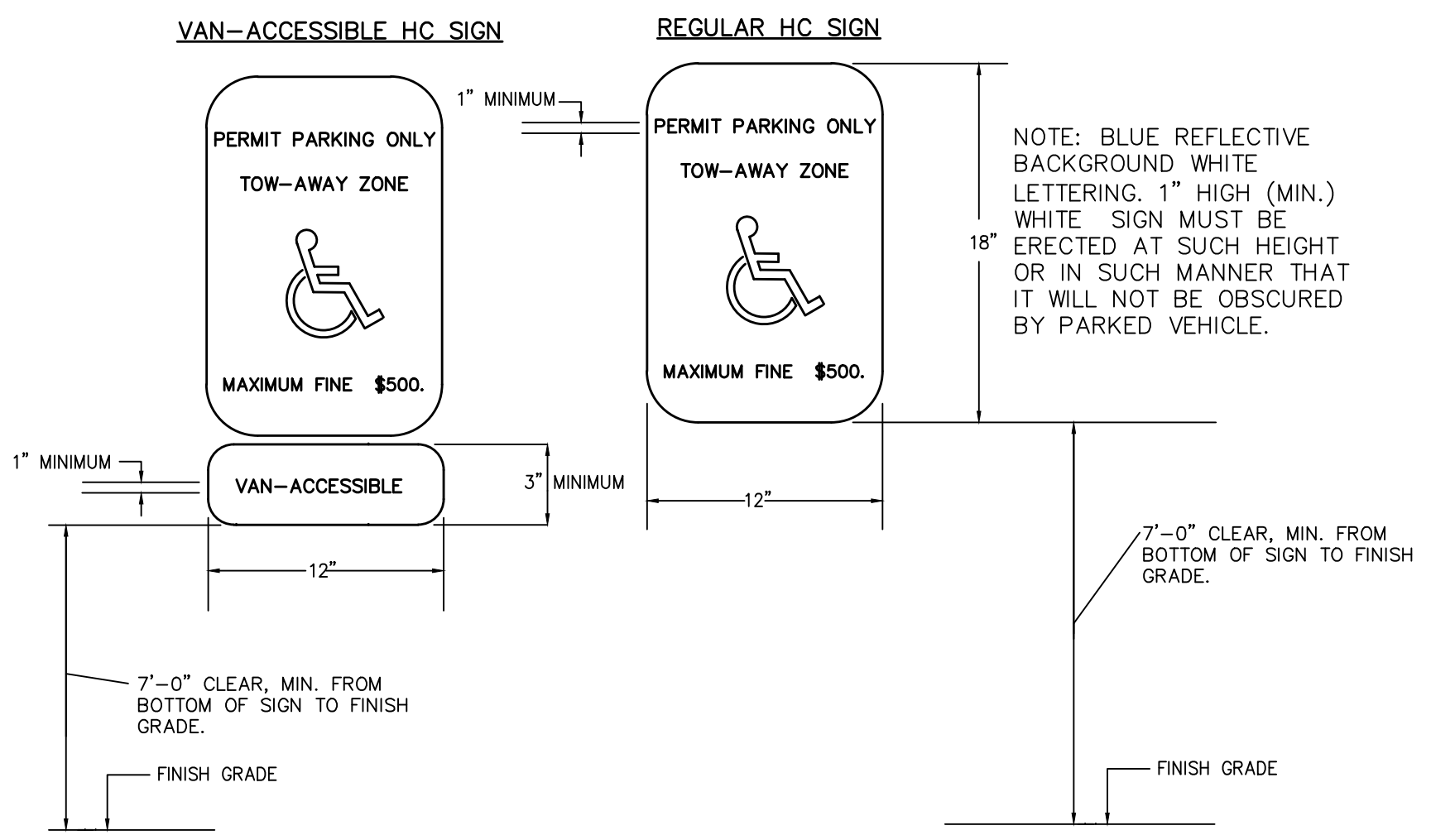
JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

SHEET NUMBER:
6

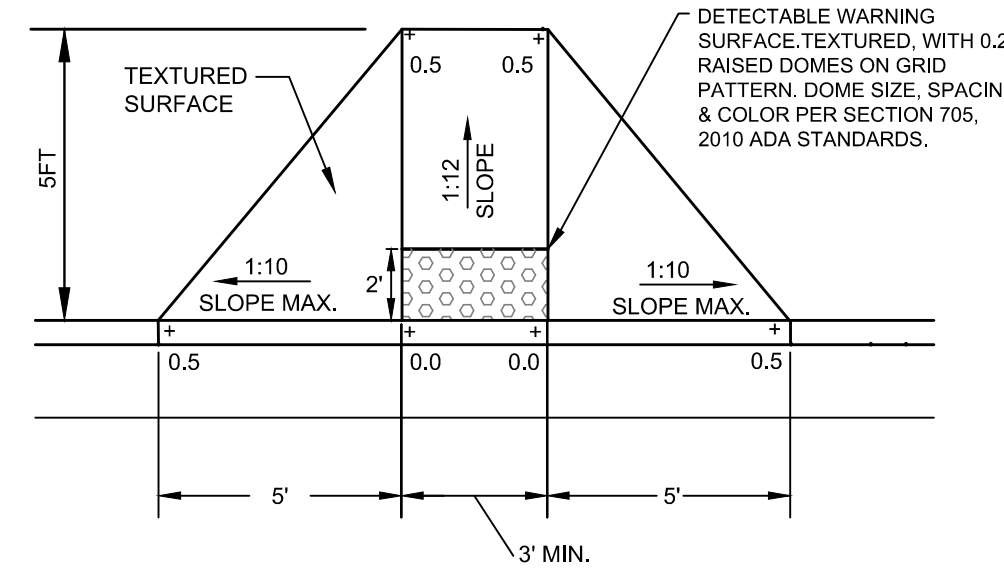
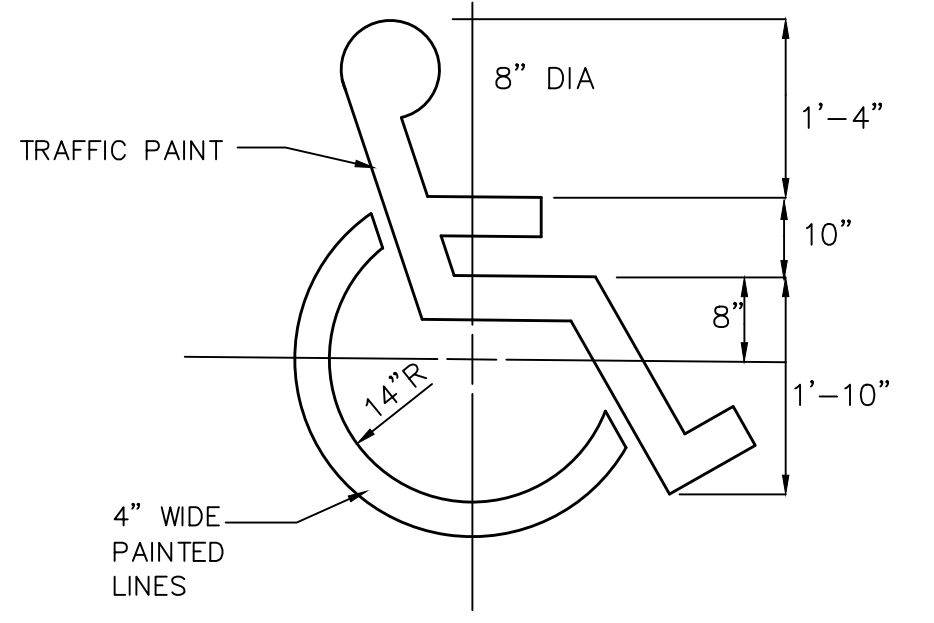
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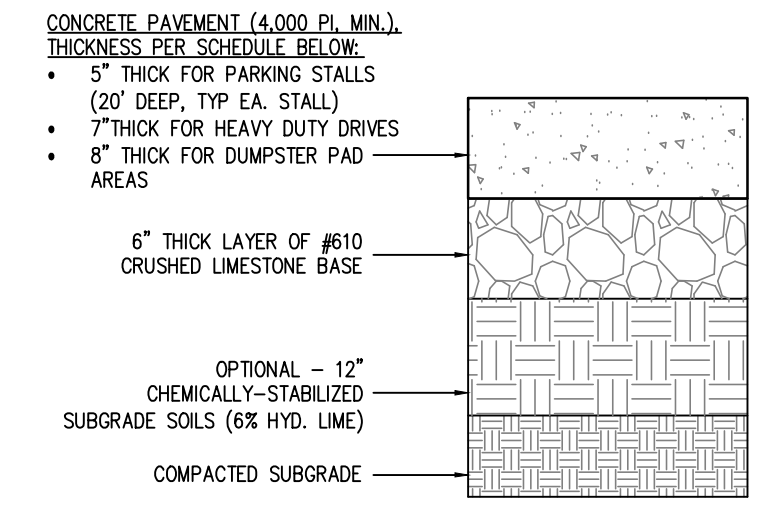
HANDICAPPED PAVEMENT STRIPING
N.T.S.



HANDICAP SIGN DETAILS
N.T.S.

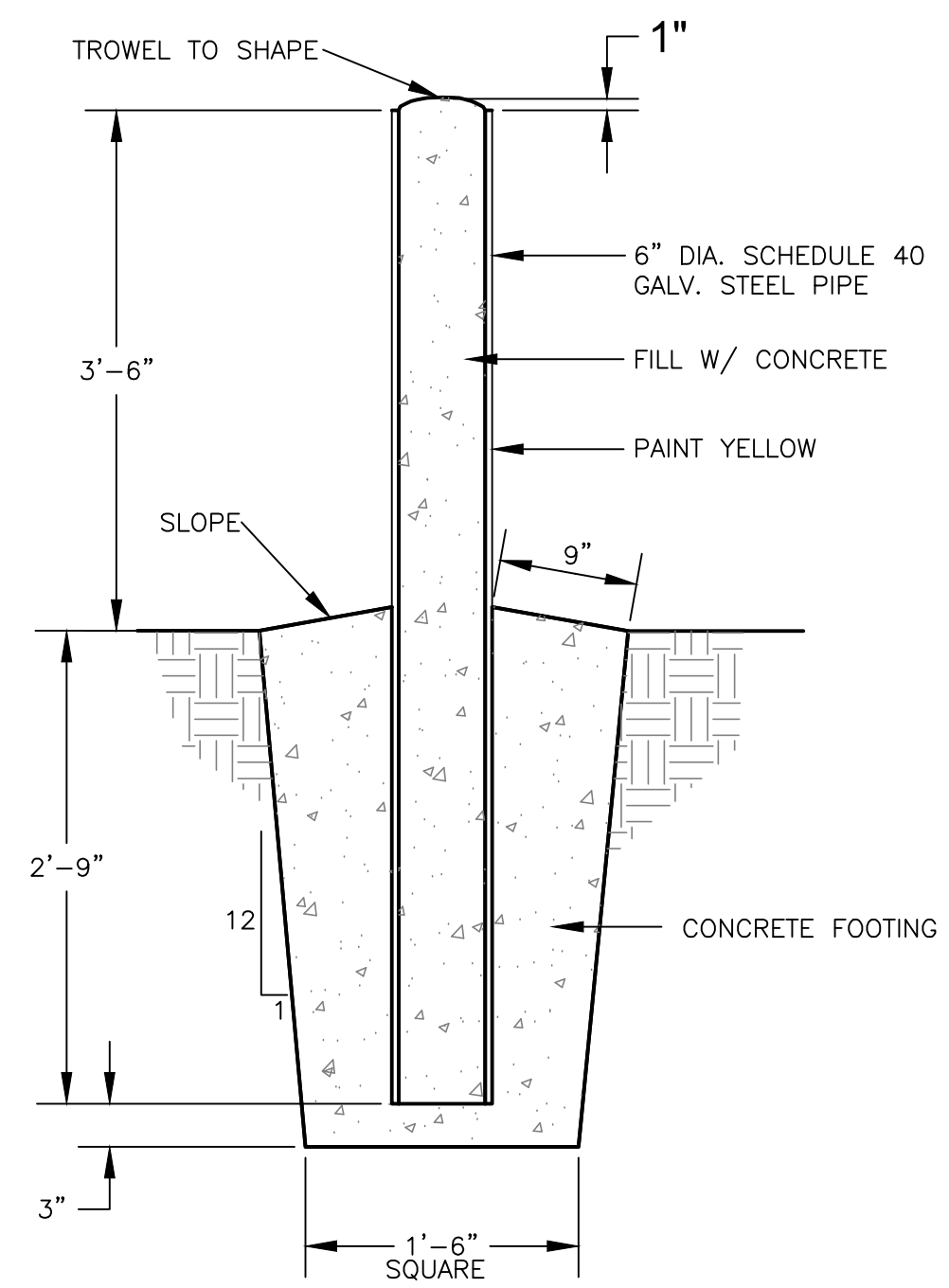


ADA RAMP DETAILS
N.T.S.

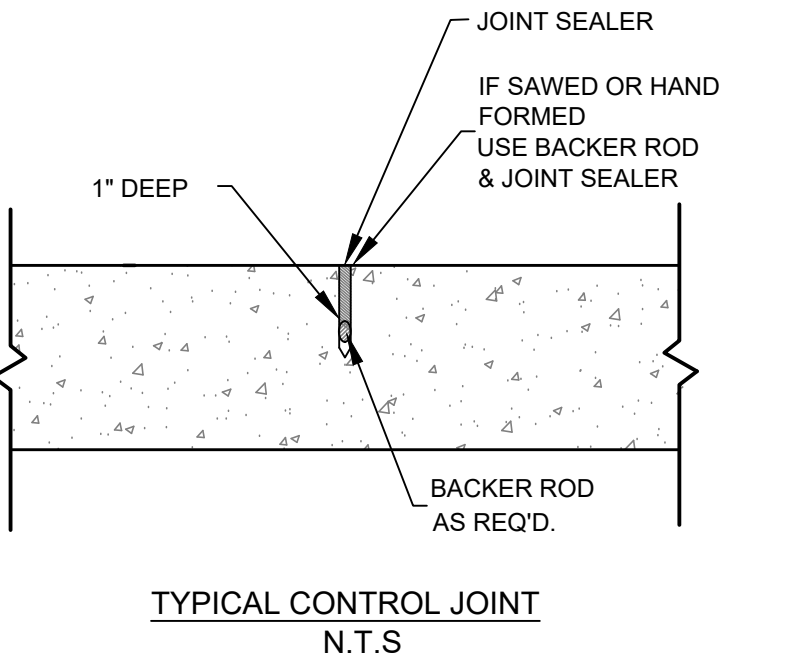
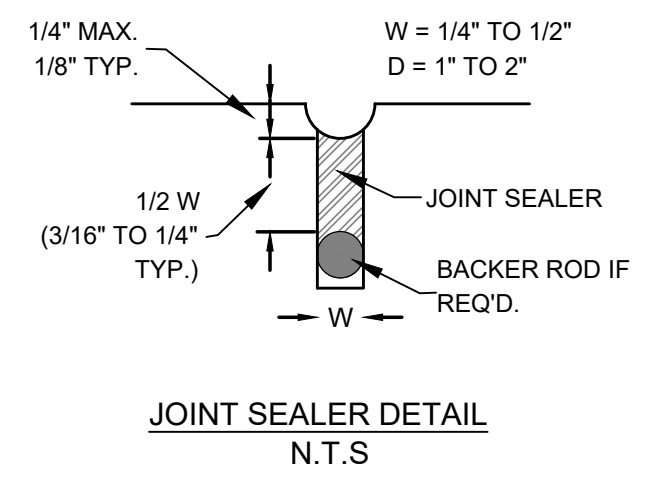
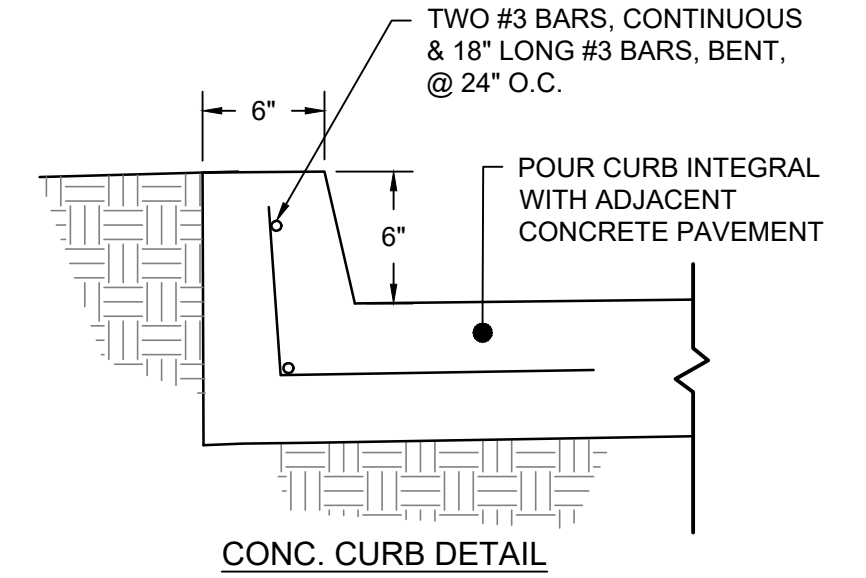
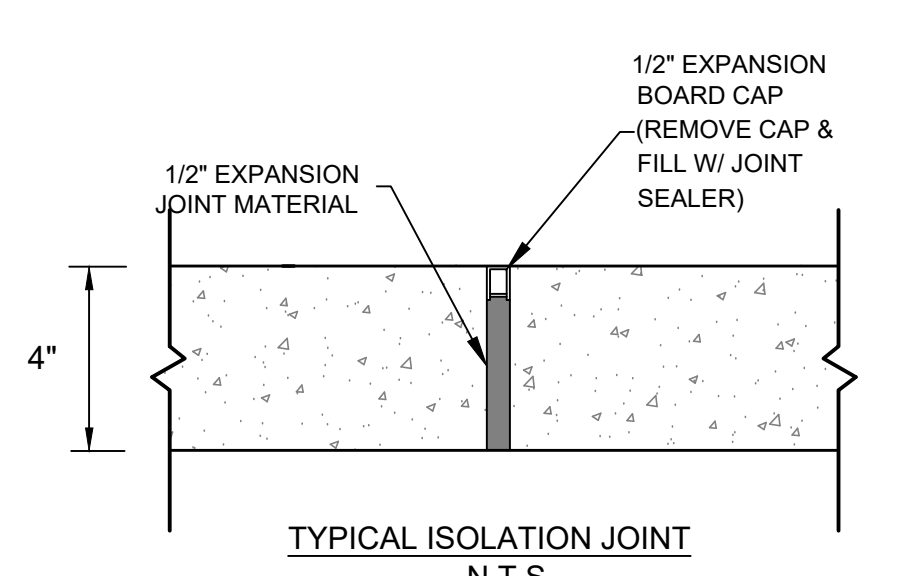
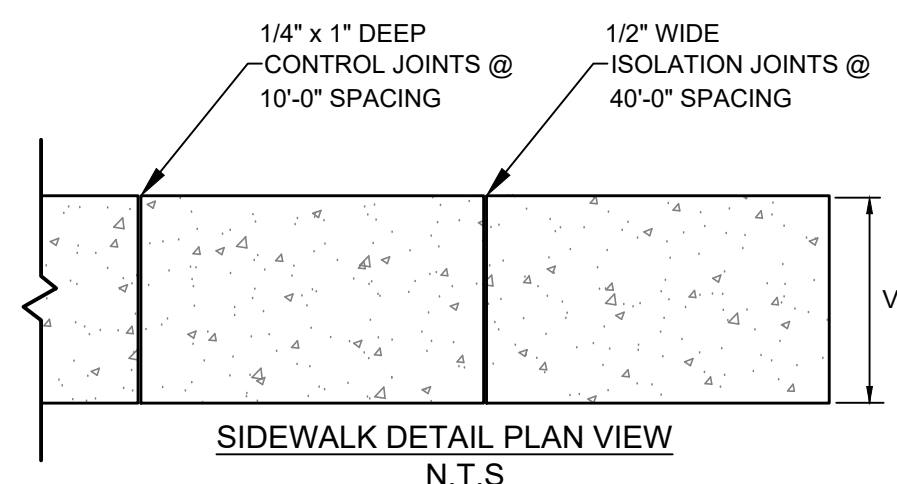
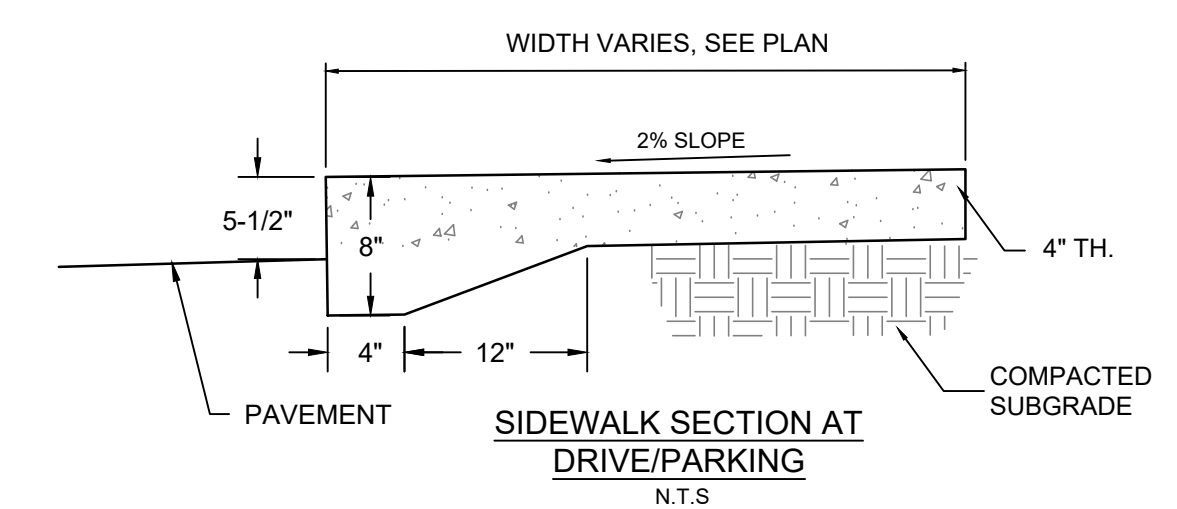


CONCRETE PAVEMENT
N.T.S.

NOTE: OPTIONAL LAYER OF 12" LIME CAN BE USED TO HELP STABILIZE SUBGRADE SOILS EXHIBITING EXCESSIVE MOISTURE. LIME TREATED SUBGRADE SHALL EXTEND 12" BEYOND CONCRETE CURB AND GUTTER

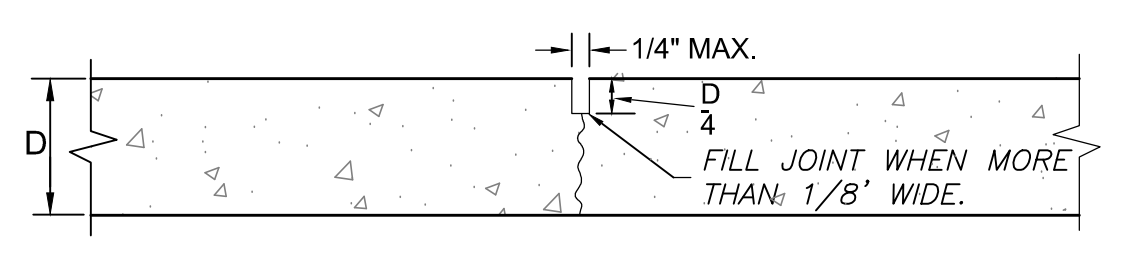
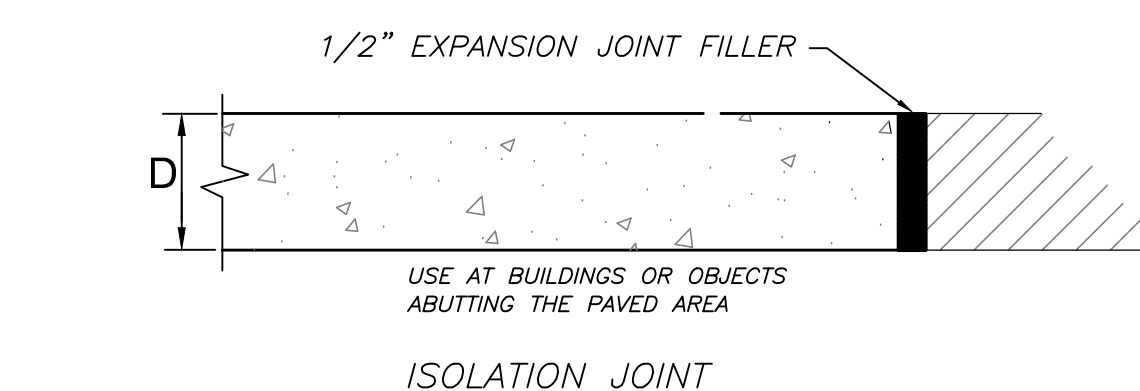
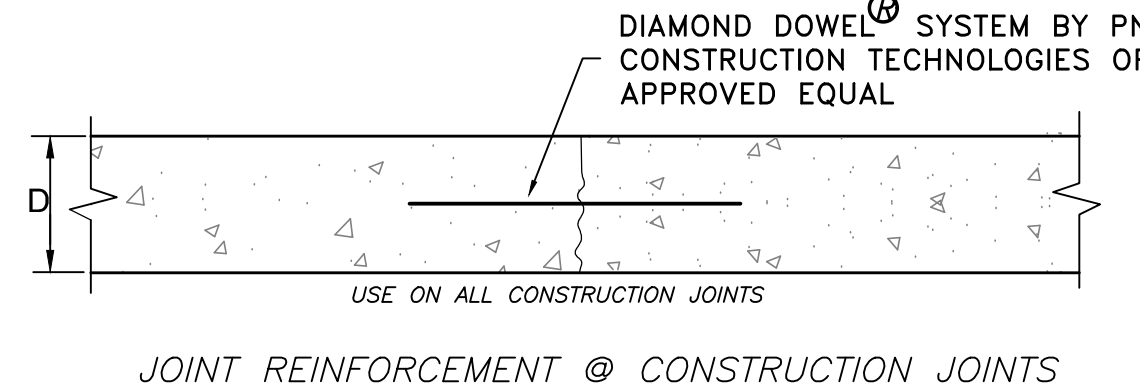
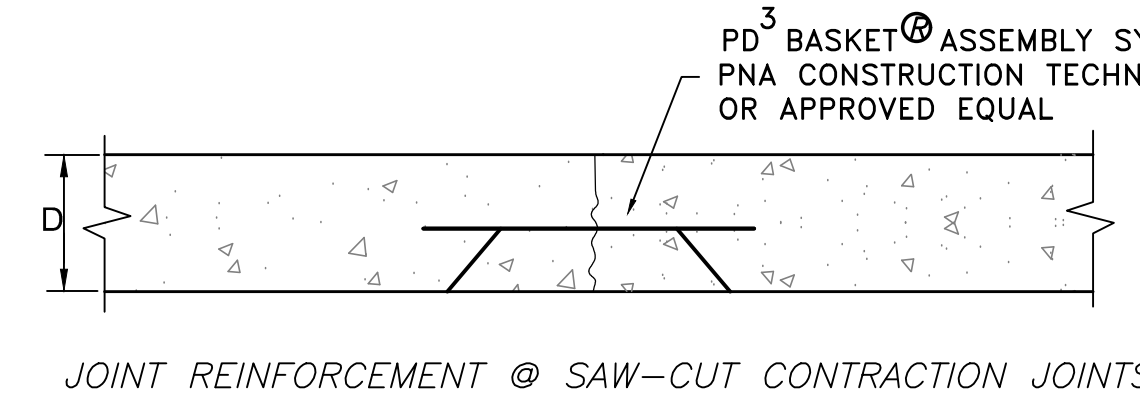


BOLLARD DETAIL
N.T.S.



- NOTES:
 1. SIDEWALKS SHALL SLOPE AWAY FROM BLDG.
 2. USE 3,500 PSI STRENGTH CONCRETE MIN.

TYPICAL SIDEWALK & CURB DETAILS
N.T.S.



NOTE: ALL JOINTS SHALL BE SEALED

CONCRETE PAVING JOINT DETAILS
N.T.S.

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W. SETH DEAN REGISTERED PROFESSIONAL ENGINEER STATE OF MISSISSIPPI 20057 10-05-2023

| | | |
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| DRAWING ISSUED | Date | 10-05-2023 |
| | Description | PLANS SUBMITTED FOR CITY REVIEW |
| No. | 1 | |

OWNER: DANNY BOLANOS
 115 HONOURS LANE,
 MADISON MS 39110

PROJECT TITLE: MAGNOLIA COMMONS
 SHEET TITLE: SITE DETAILS
 SITE DEVELOPMENT

| | |
|--------------|-------------|
| JOB NO.: | 220502 |
| DATE: | 17 MAY 2022 |
| SCALE: | AS SHOWN |
| DRAWN BY: | WSD |
| REVIEWED BY: | WSD |

SHEET NUMBER: 7

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DEAN ENGINEERING SOLUTIONS, INC. 4780 -55 NORTH, SUITE 100-4 JACKSON, MS 39211 601-557-2002 WWW.DEANESI.COM



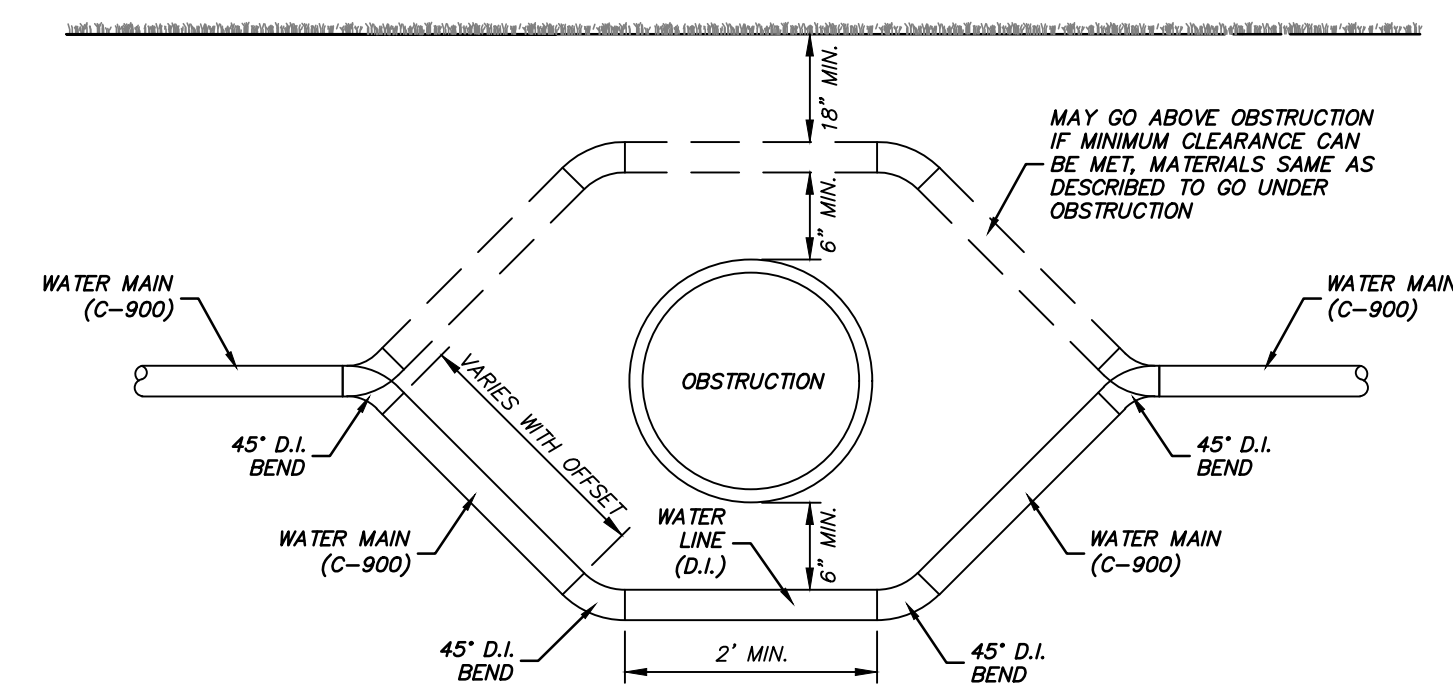
DRAWING ISSUED Description Date 10-05-2023 PLANS SUBMITTED FOR CITY REVIEW No. 1

OWNER: DANNY BOLANOS 115 HONOURS LANE, MADISON MS 39110

PROJECT TITLE: MAGNOLIA COMMONS SHEET TITLE: UTILITY DETAILS SITE DEVELOPMENT

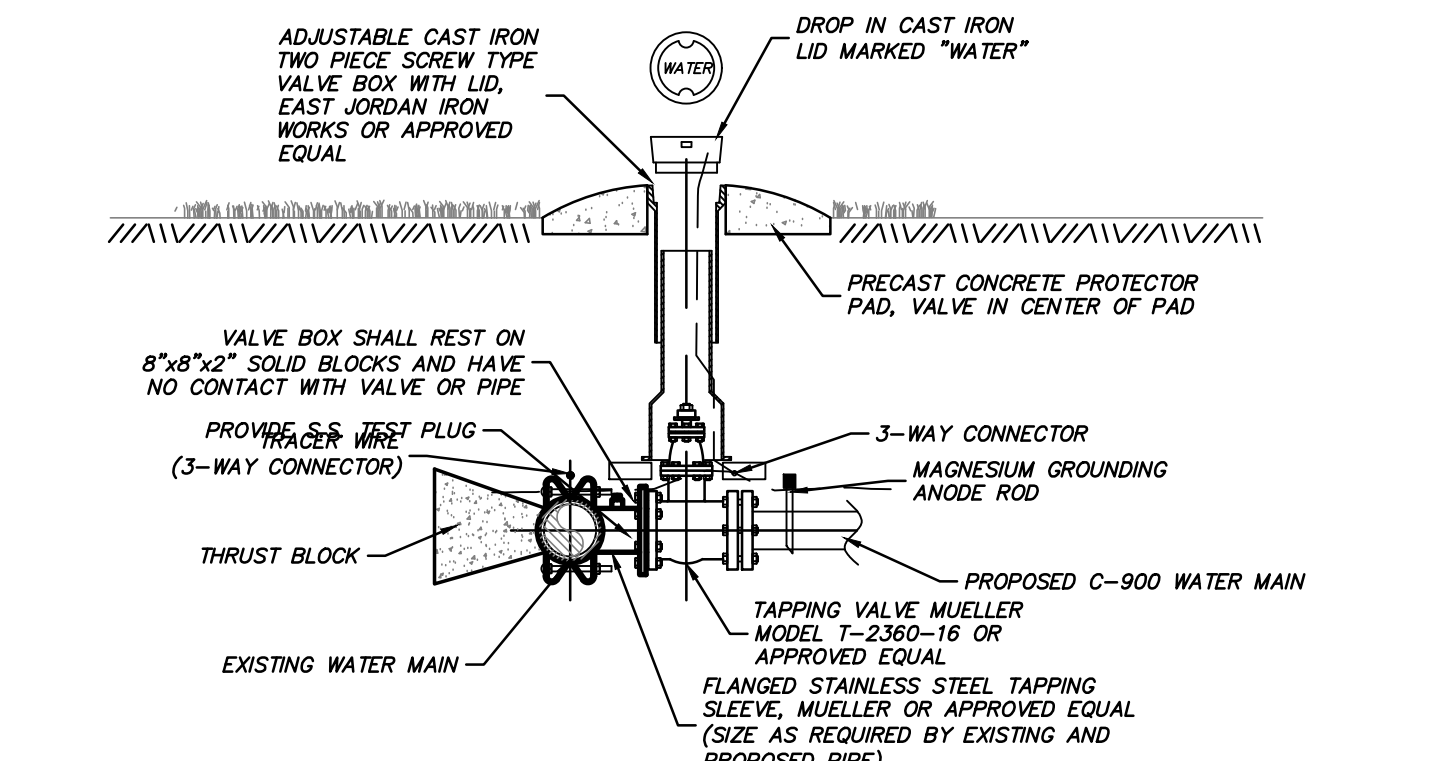
JOB NO.: 220502 DATE: 17 MAY 2022 SCALE: AS SHOWN DRAWN BY: WSD REVIEWED BY: WSD

SHEET NUMBER: 8

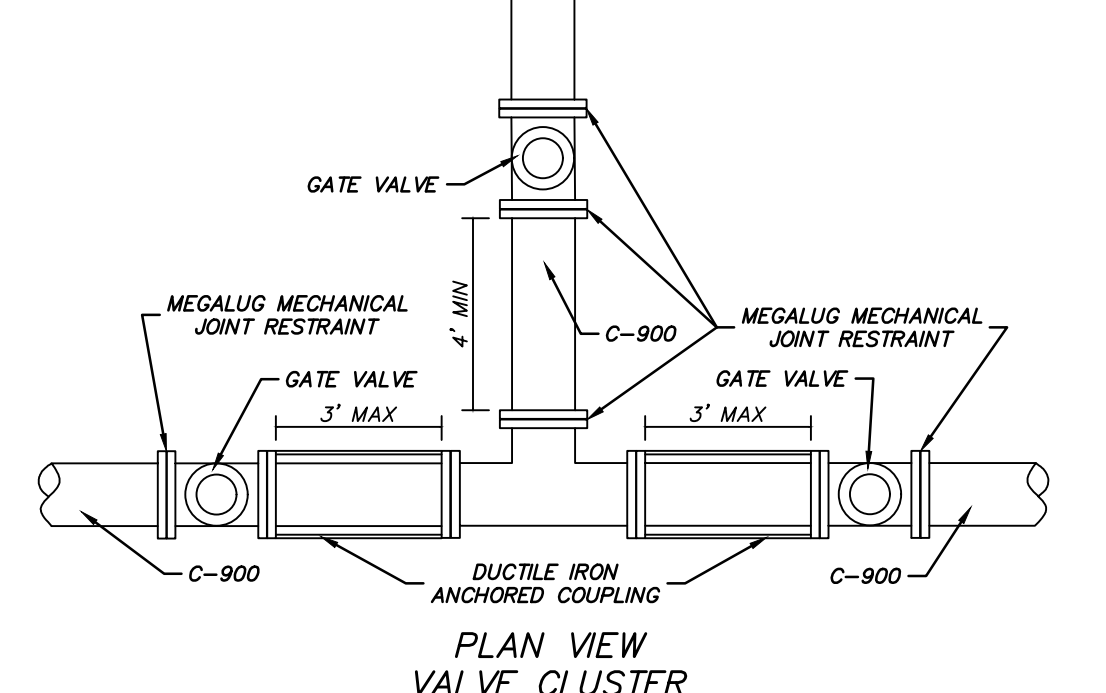


- WATER LINE OBSTRUCTION NOTES: 1. CONTRACTOR TO FOLLOW CLEARANCE REQUIREMENTS IN THE SPECIFICATIONS FOR WATER, STORM DRAIN AND SANITARY SEWER LINE CROSSINGS...

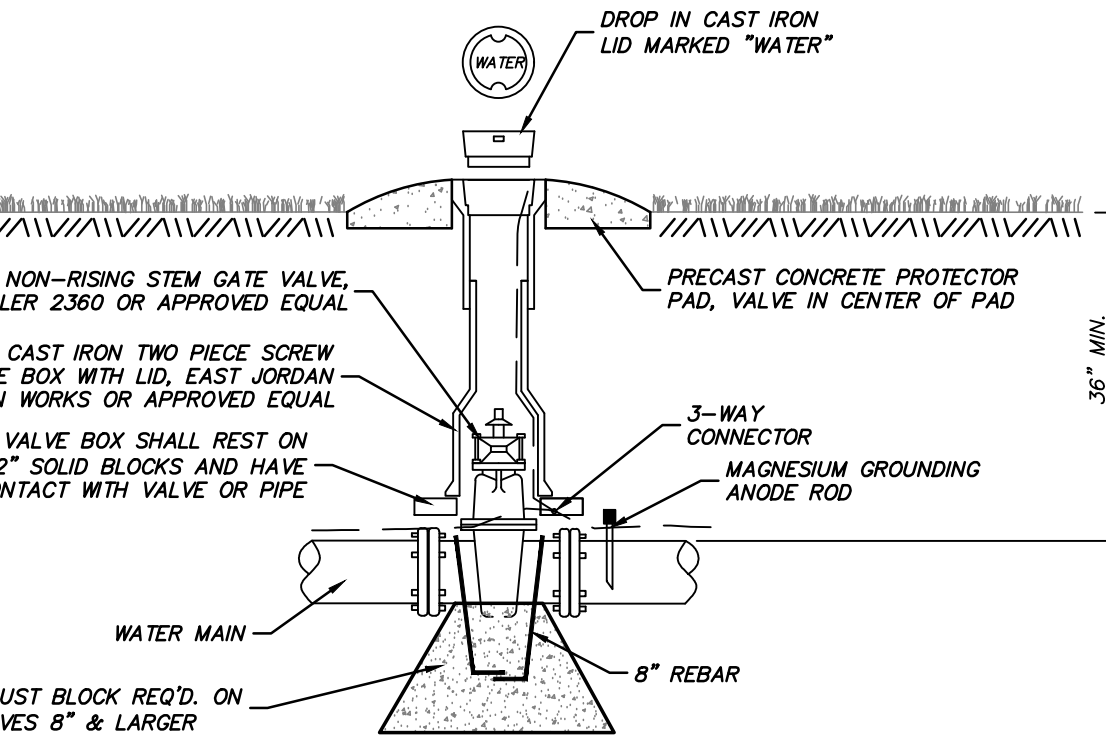
TYPICAL WATER LINE OBSTRUCTION



CONNECTION TO EXISTING WATER MAIN

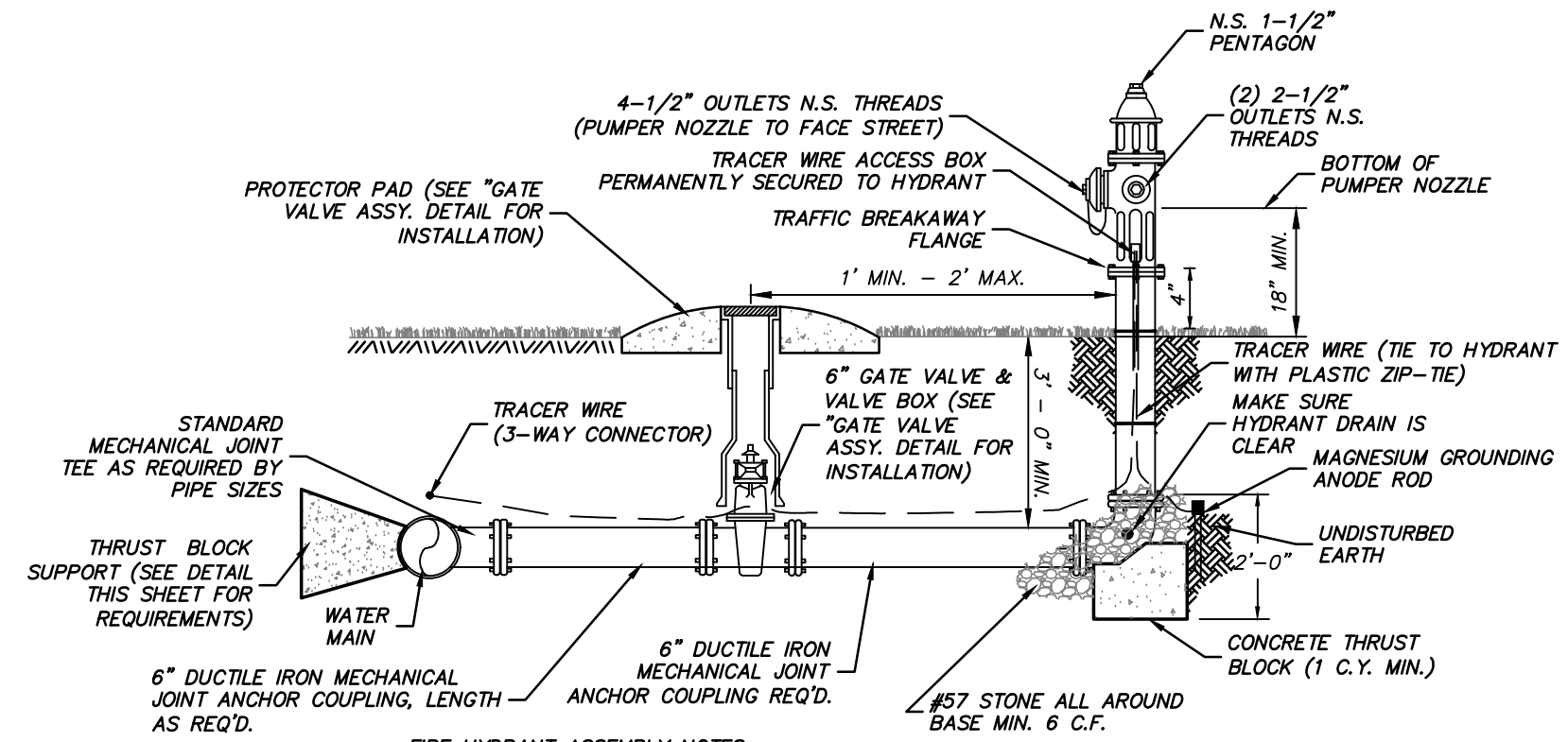


PLAN VIEW VALVE CLUSTER



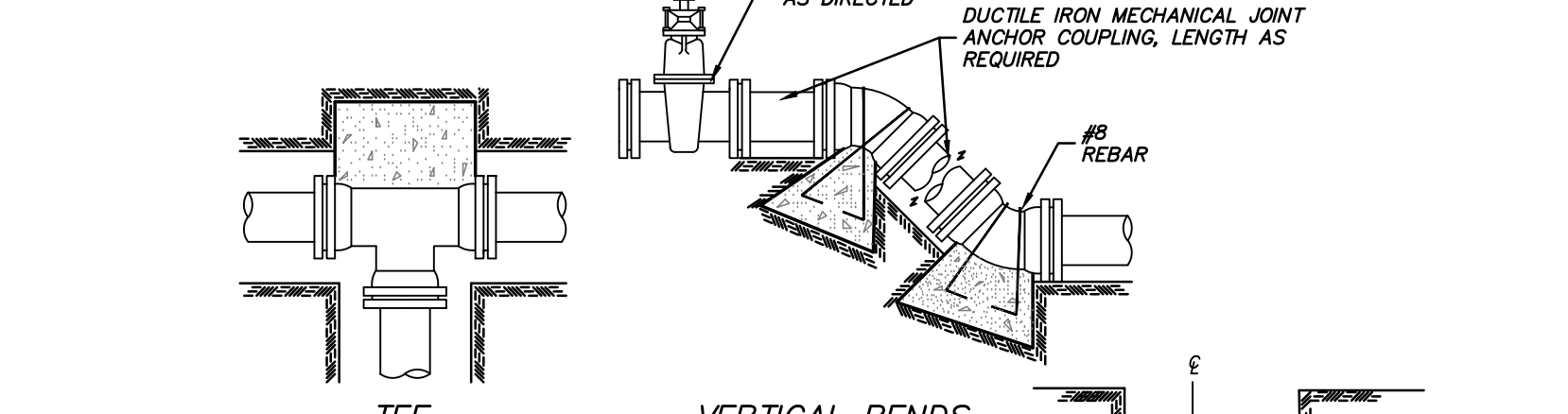
- GATE VALVE ASSEMBLY NOTES: 1. GATE VALVE SHALL MATCH SIZE OF LINE ON WHICH IT IS INSTALLED UNLESS OTHERWISE NOTED...

GATE VALVE ASSEMBLY



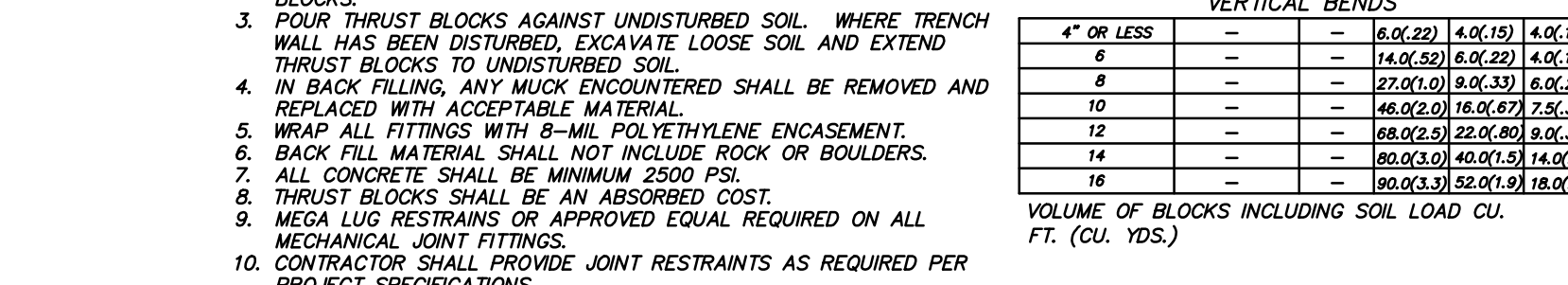
- FIRE HYDRANT ASSEMBLY NOTES: 1. ALL FIRE HYDRANT ASSEMBLIES TO INCLUDE GATE VALVES...

FIRE HYDRANT ASSEMBLY

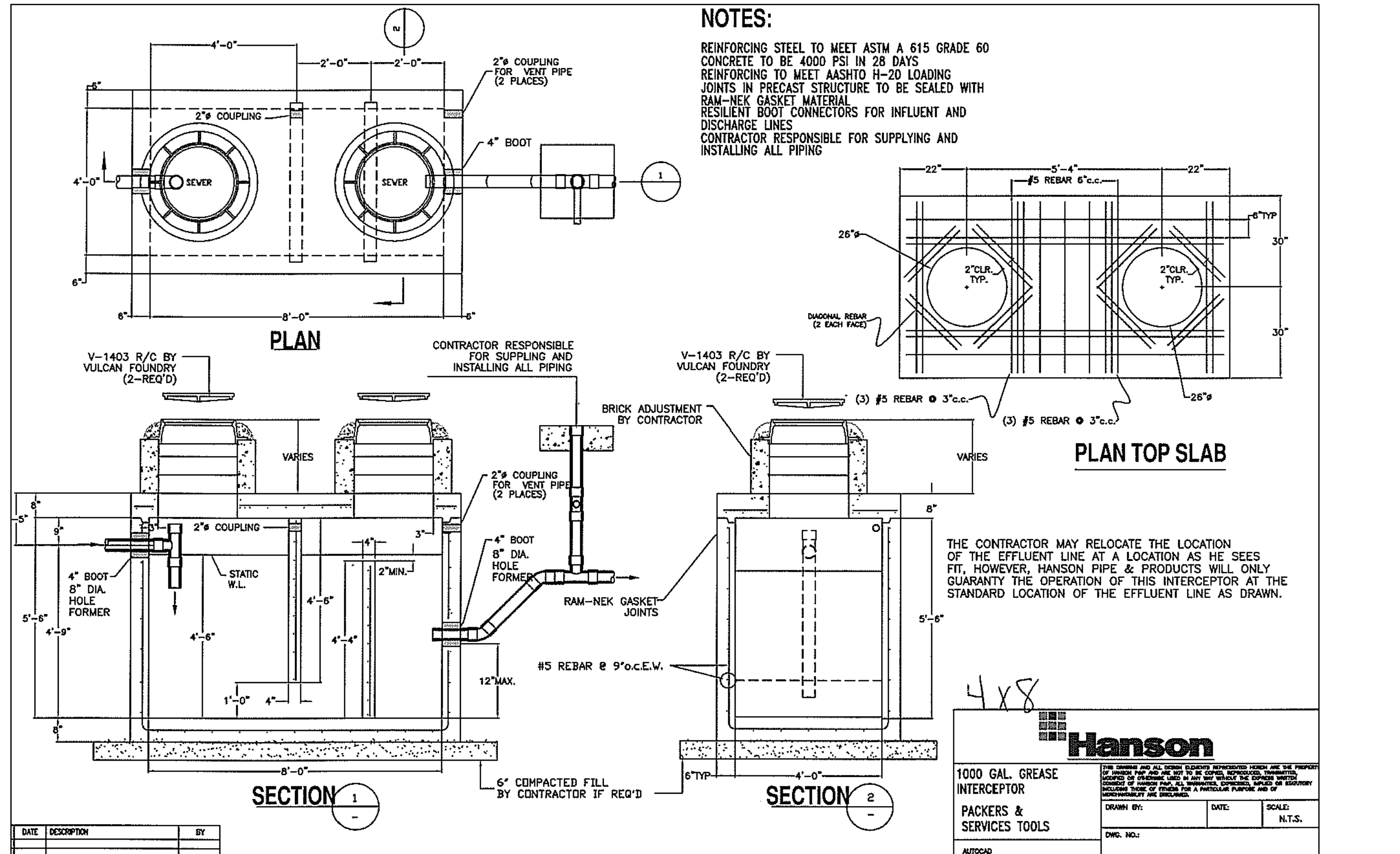


TEE VERTICAL BENDS PLUGGED TEE 90° BEND

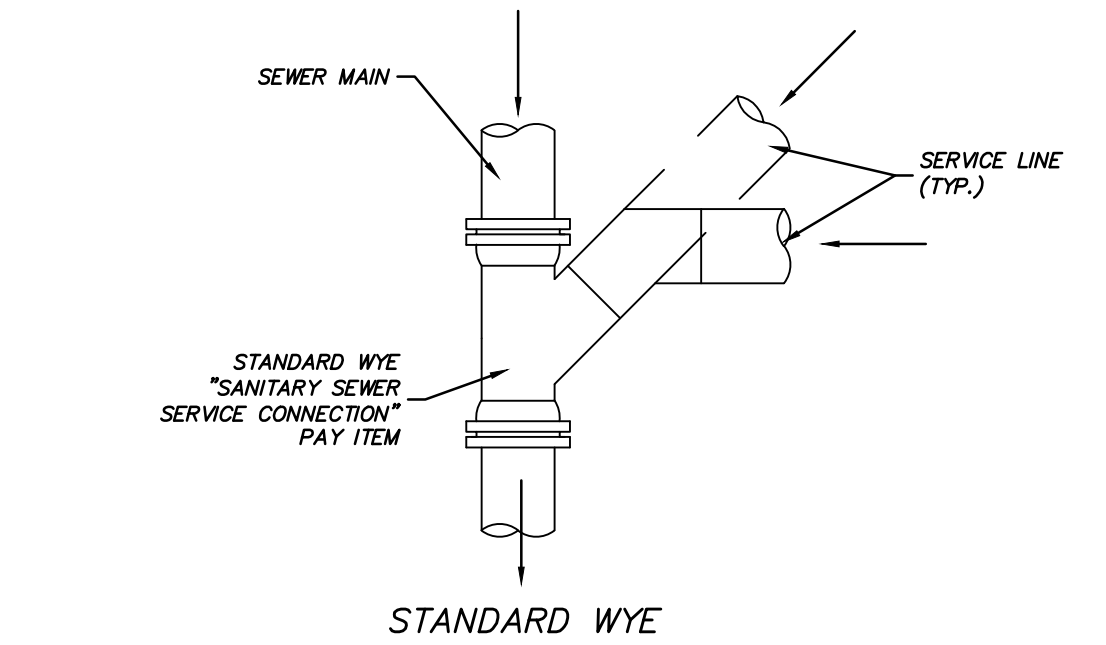
Table with 2 columns: BEARING AREA IN SQ. FT. and VERTICAL BENDS. Rows include pipe diameters (4" to 16") and corresponding bearing areas and bend dimensions.



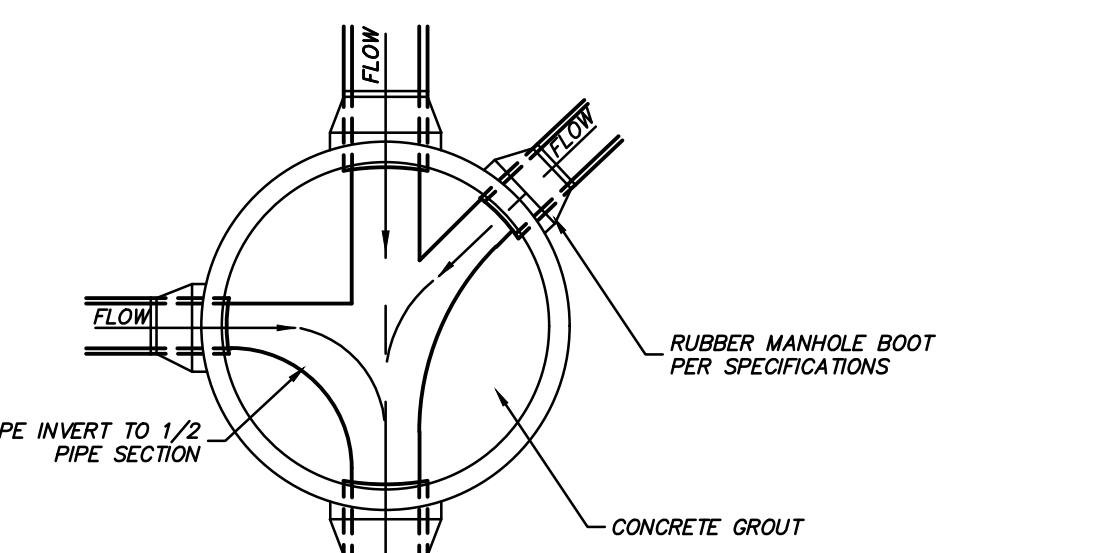
TYPICAL THRUST BLOCK



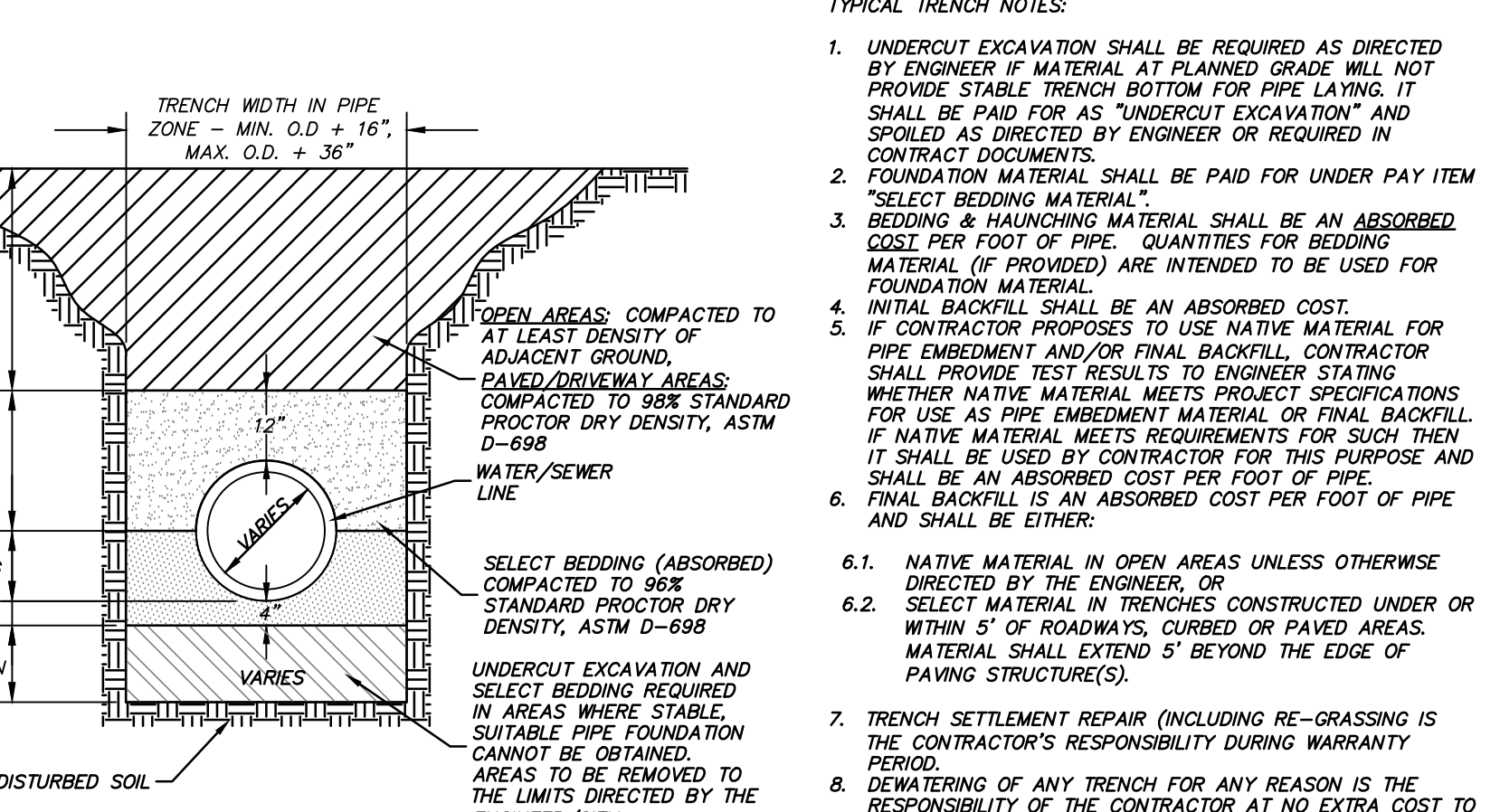
GREASE TRAP



STANDARD WYE

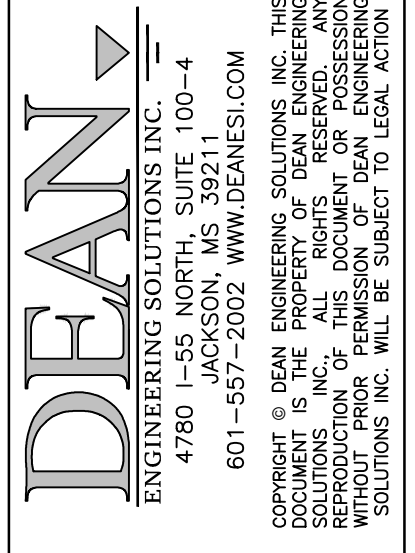


FLOW CHANNEL & PIPE CONNECTION



TYPICAL TRENCH FOR PVC WATER & SEWER LINES

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| No. | Description | Date |
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

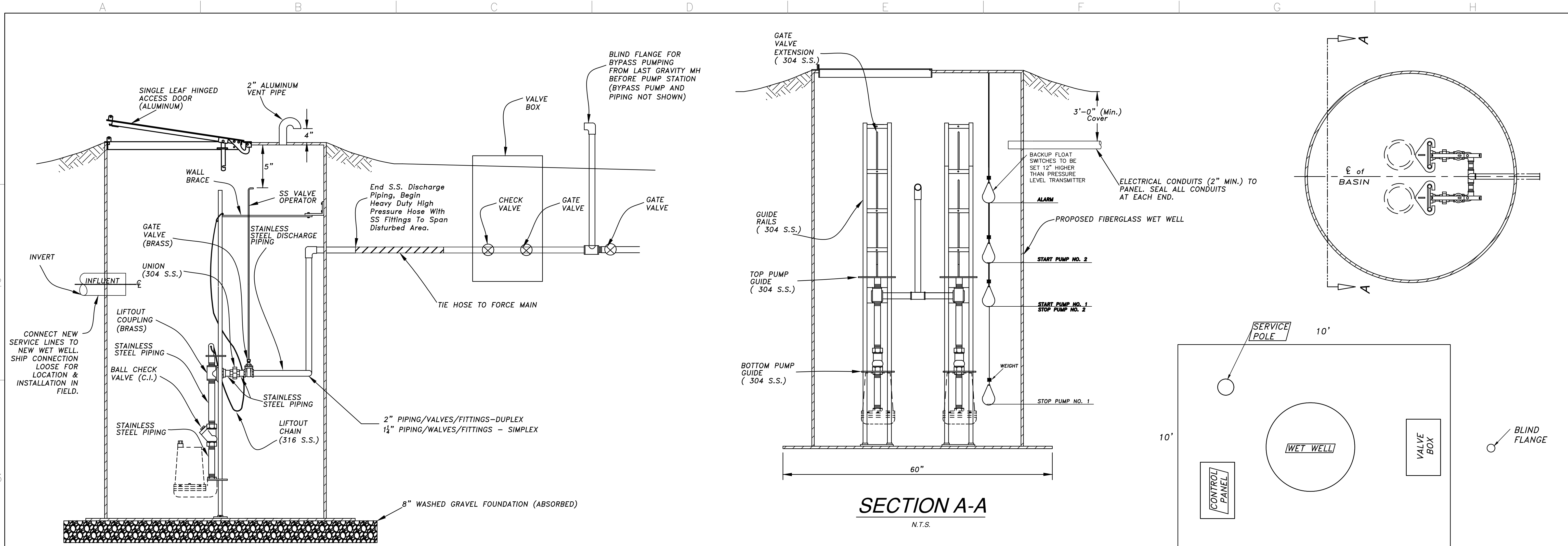
DRAWING ISSUED

OWNER:
DANNY BOLANOS
115 HONOURS LANE,
MADISON MS 39110

PROJECT TITLE: **MAGNOLIA COMMONS**
SHEET TITLE:
PUMP STATION DETAILS
SITE DEVELOPMENT

JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

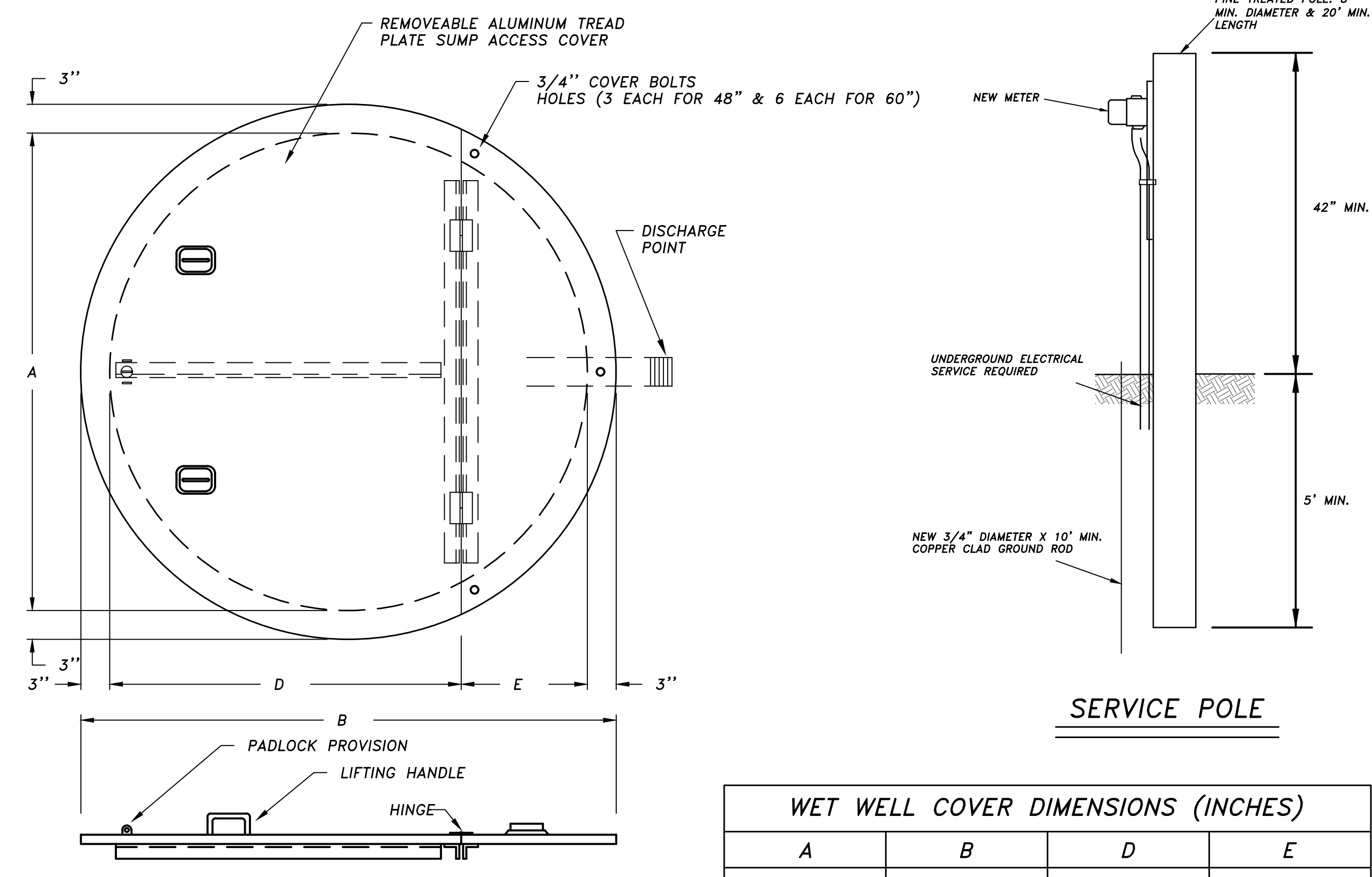
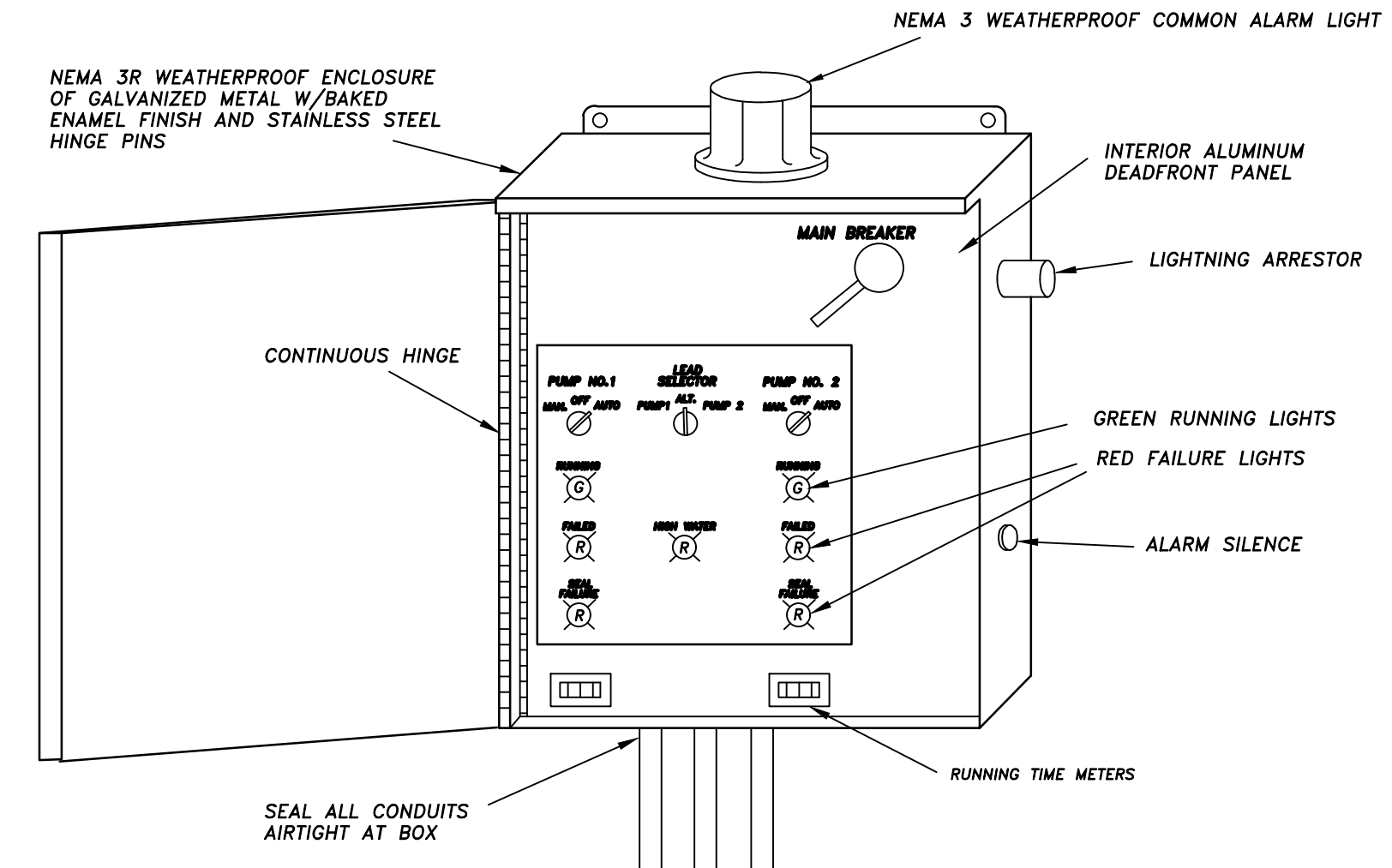
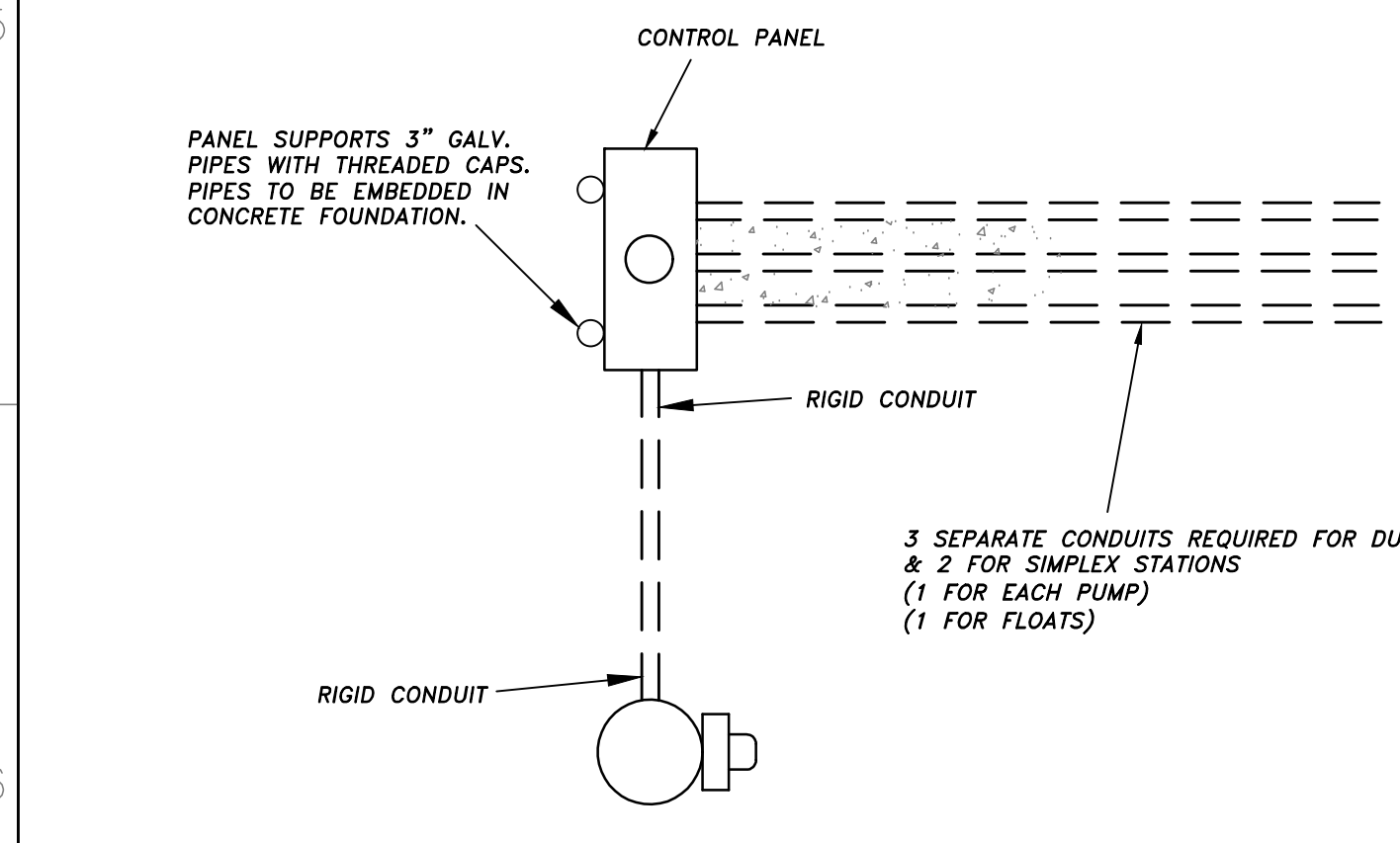
SHEET NUMBER:
9



- NOTES:
1. IMMEDIATELY FOLLOWING WETWELL INSTALLATION, CONTRACTOR SHALL COMPLETELY PLACE AND COMPACT BACKFILL, INSTALL TOP COVER, FILL WITH WATER, AND ANY OTHER PRECAUTIONS NECESSARY TO PROTECT WETWELL FROM UPLIFT FORCES.
 2. CONTROL PANEL, PIPING, ETC. SHALL BE FIELD LOCATED TO BEST FIT SITE AS DIRECTED BY ENGINEER AND OWNER.
 3. SITE TO BE DRESSED AND GRADED TO UNIFORM SLOPES TO DIVERT SURFACE DRAINAGE AWAY FROM WETWELL AND VALVE BOX.
 4. THE ELEVATIONS SHOWN IN THE DESIGN TABLE ARE THE MINIMUM DESIGN REQUIREMENTS. IF MANUFACTURER OF THE PROPOSED PUMP REQUIRE A GREATER DEPTH, THE WETWELL BOTTOM SHALL BE LOWERED AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
 5. INLET & OUTLET PIPE CONNECTIONS TO BE SHIPPED LOOSE (FOR LOCATION & INSTALLATION IN FIELD).

| DUPLIX PUMP STATION DATA | | | |
|-------------------------------------|--------|----------------|--|
| PARAMETERS | | UNITS PUMP 1&2 | |
| CAPACITY (PUMP) | G.P.M. | 35 | |
| SIZE | HP | 5HP (MIN.) | |
| MOTOR VOLTAGE | VOLTS | 230 | |
| MOTOR SPEED | R.P.M. | 3450 | |
| PHASE POWER | N.A. | 3 | |
| FRICTION HEAD (C=140) | FT. | 4.4 | |
| ELEVATION HEAD | FT. | 7.0 | |
| TOTAL (T.D.H.) | FT. | 11.4 | |
| FRICTION HEAD (C=100) | FT. | 61.0 | |
| PRESSURE HEAD EX.12" FM | FT. | 35.0 | |
| TOTAL (T.D.H.) | FT. | 104.0 | |
| WET WELL I.D. | IN. | 48" | |
| FORCE MAIN I. D. | IN. | 2" | |
| DISCH. PIPE, VALVES & FITTINGS I.D. | IN. | 2" | |
| FORCE MAIN LENGTH | L.F. | 175' | |
| ELEVATION TOP | FT. | 263.50 | |
| ELEV. LOWEST GRAVITY INVERT | FT. | 257.00 | |
| ELEVATION ALARM | FT. | 257.50 | |
| ELEV. ON 2ND PUMP | FT. | 256.50 | |
| ELEV. ON 1ST PUMP | FT. | 255.50 | |
| ELEVATION OFF (1st & 2nd) | FT. | 254.50 | |
| ELEVATION INVERT | FT. | 252.50 | |
| ELEV. 2"FM DISCHARGE (Ø 12" FM) | FT. | 260.00 | |
| ELEV. CONTROLLING HIGH POINT | FT. | NA | |

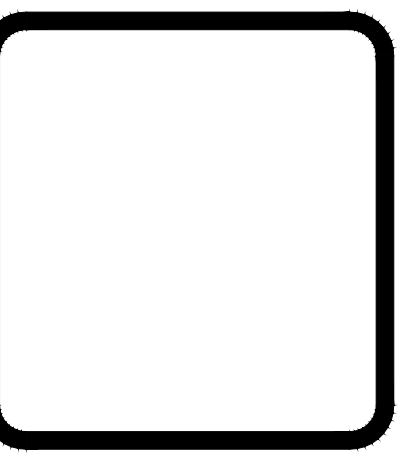
- NOTES:
1. PUMPS SHALL BE PENTAIR HYDROMATIC - HPCH, SPEED RATED 3,450 RPM, MOTOR RATING 5.0 HP, 4.75 INCH IMPELLER PROVIDE 3 PHASE POWER.



| WET WELL COVER DIMENSIONS (INCHES) | | | |
|------------------------------------|----|----|----|
| A | B | D | E |
| 48 | 54 | 38 | 10 |

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WOOLDRIDGE & ASSOCIATES
 464 CHURCH RD. SUITE 700
 MADISON, MS 39110
 601-209-8885
 WOOLDRIDGEARCHITECTURE@YAHOO.COM

Magnolia District
 Church Road
 Gluckstadt, Mississippi

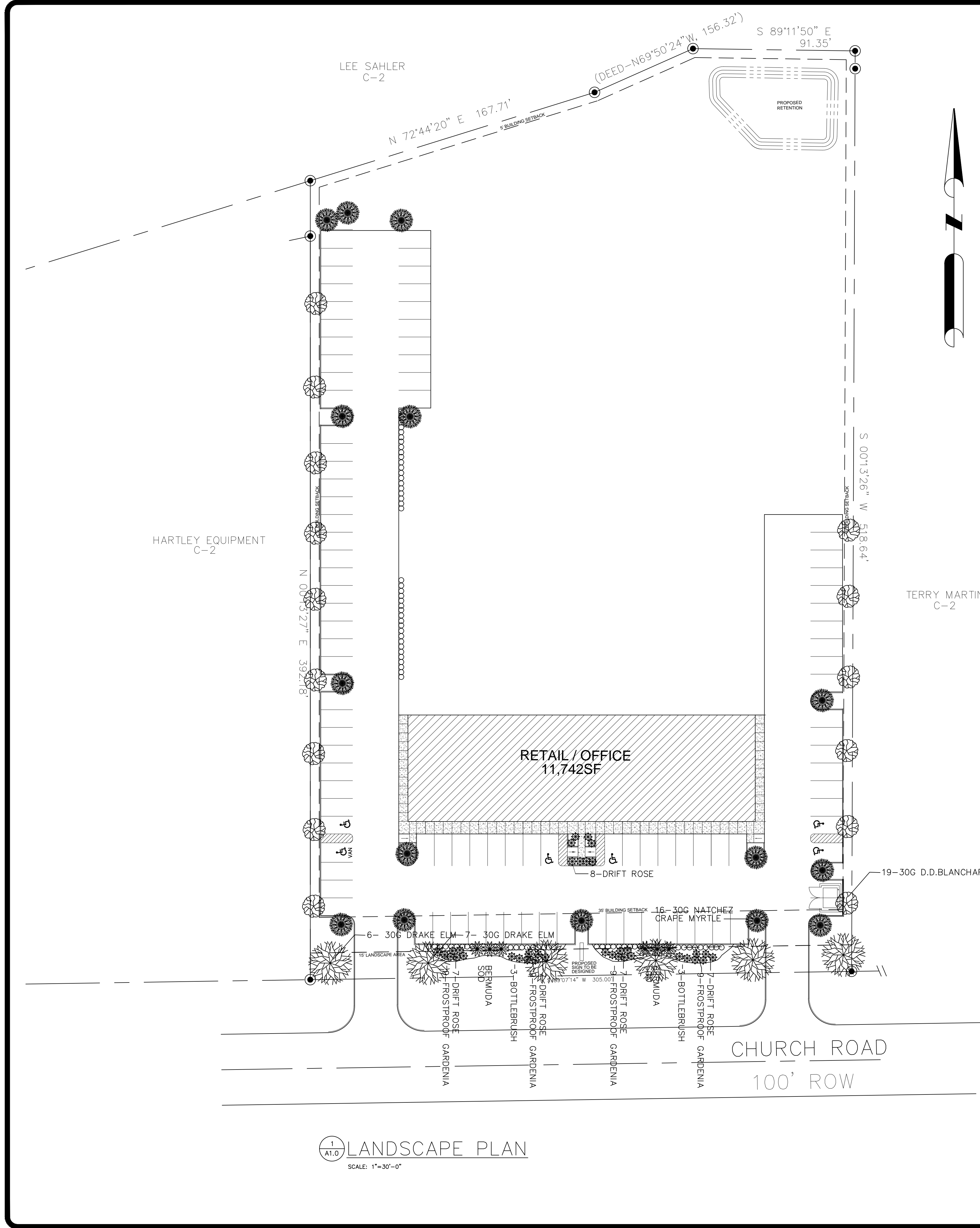
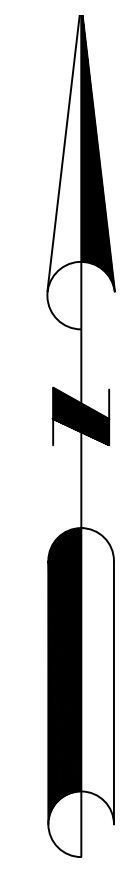
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| DATE 3/2/22 |
| SCALE |
| JOB NO. |
| SHEET |
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SITE 151,125SF (3.47AC)
 SITE 151,125SF (3.47AC)
 BUILDING 11,742SF
 SITE COVERAGE 7.7%

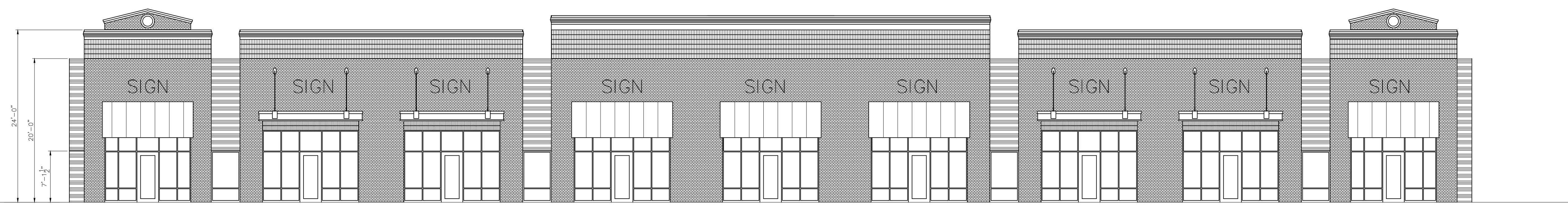
C2 ZONING
 BUILDING USAGE AND PARKING REQUIREMENTS
 RESTAURANT 3,000SF /100 = 30 PARKING SPACES
 RETAIL 8,742SF /225 = 38.8 PARKING SPACES
 TENNIS COURTS 9 COURTS X 2 = 18 PARKING SPACES
 45 SPECTATORS = 9 PARKING SPACES

PARKING REQUIRED: 96 PARKING SPACES
 PARKING PROVIDED: 96 PARKING SPACES

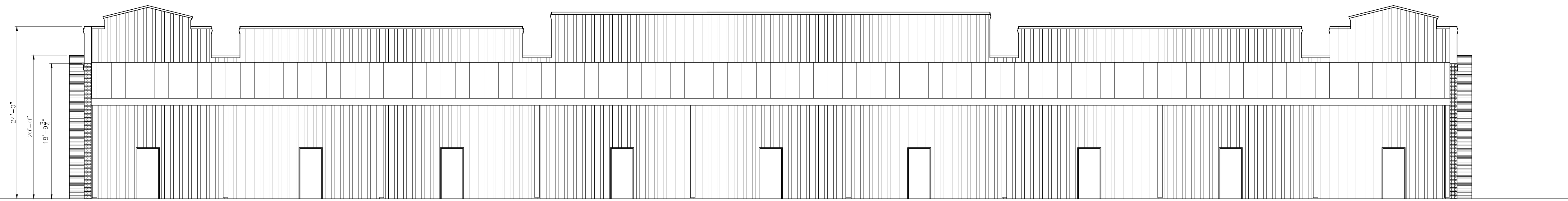


LANDSCAPE PLAN
 SCALE: 1"=30'-0"

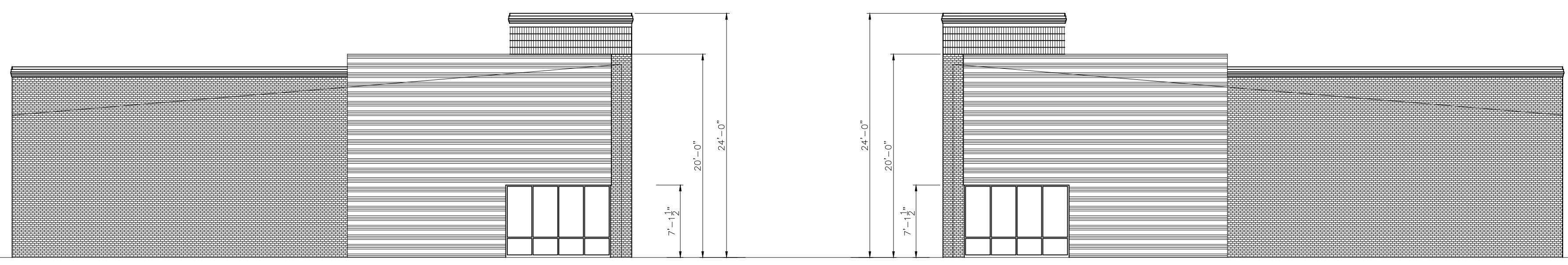
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1
A1.0 FRONT ELEVATION
SCALE: 1/8"=1'-0"



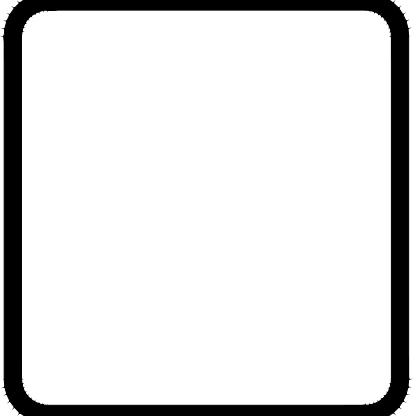
1
A1.0 REAR ELEVATION
SCALE: 1/8"=1'-0"



1
A1.0 SIDE ELEVATION
SCALE: 1/8"=1'-0"

1
A1.0 SIDE ELEVATION
SCALE: 1/8"=1'-0"

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W
 WOOLDRIDGE & ASSOCIATES
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 MADISON, MS 39110
 601-209-8865
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Magnolia District
 Church Road
 Gluckstadt, Mississippi

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| DATE 3/2/22 |
| SCALE |
| JOB NO. |
| SHEET A3.0 |
| OF SHEETS |

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Stormwater Impact Analysis

For

Magnolia Commons

A Proposed Commercial
Site Development
Gluckstadt, MS

Report Prepared by:

Dean Engineering Solutions Inc.



10-05-2023

Issue Dates
05 Oct 2023

Description
Submittal for Review

Project Overview

The project site development lies within the City of Gluckstadt near the intersection of Church Rd and Old Jackson Rd. The existing site is approximately 3.5 AC of undeveloped land with grass coverage. The proposed project will feature new general commercial lease buildings with parking, drives and all necessary utilities. The project will also feature an open dry pond stormwater detention structure sized to accommodate stormwater for the development.

Existing Site Description:

Stormwater runoff from the existing site surface drains north to an existing ditch at the north property boundary, and then eastward off site. According to the USDA Natural Resource Conservation Service, Web Soil Survey Service mapping, the existing site soils are Gillsburg Silt Loam, which belongs to USDA hydrologic soils group D. According to FEMA FIRM Map #28089C0415F, effective March 17, 2010, the site lies within zone X, which is classified as an area of minimal flood hazard.

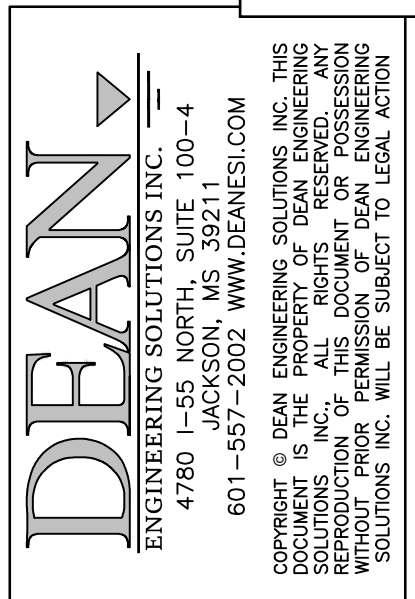
Stormwater Management:

The proposed stormwater detention design controls and reduces stormwater flows below the existing development conditions for the 2-year, 5, 10, 25, 50 and 100-yr storm events. See summary of pre-vs-post flow results below. See attachments for detailed stormwater flow characteristics and other pertinent design parameters, inputs and results.

| <u>Pond routing runoff summary</u> | | | |
|---|------------------------|-------------------------|--------------------------|
| Storm Event (year) | Pre-Develop flow (cfs) | Post-Develop flow (cfs) | Detained Water Elevation |
| 2 | 6.81 | 6.13 | 258.68 |
| 5 | 9.41 | 9.15 | 259.13 |
| 10 | 11.58 | 11.53 | 259.48 |
| 25 | 13.76 | 13.42 | 259.79 |
| 50 | 15.71 | 14.94 | 260.05 |
| 100 | 17.44 | 16.22 | 260.20 |

List of Attachments:

- Maps
 - DA1 – Pre-Development Drainage Map
 - DA2 – Post Development Drainage Map
 - Natural Resources Conservation Service Web Soil Survey
 - FEMA FIRMette Map
- Calculations
 - HydroCAD Pond Routing Report (2-100 year events)



10-05-2023

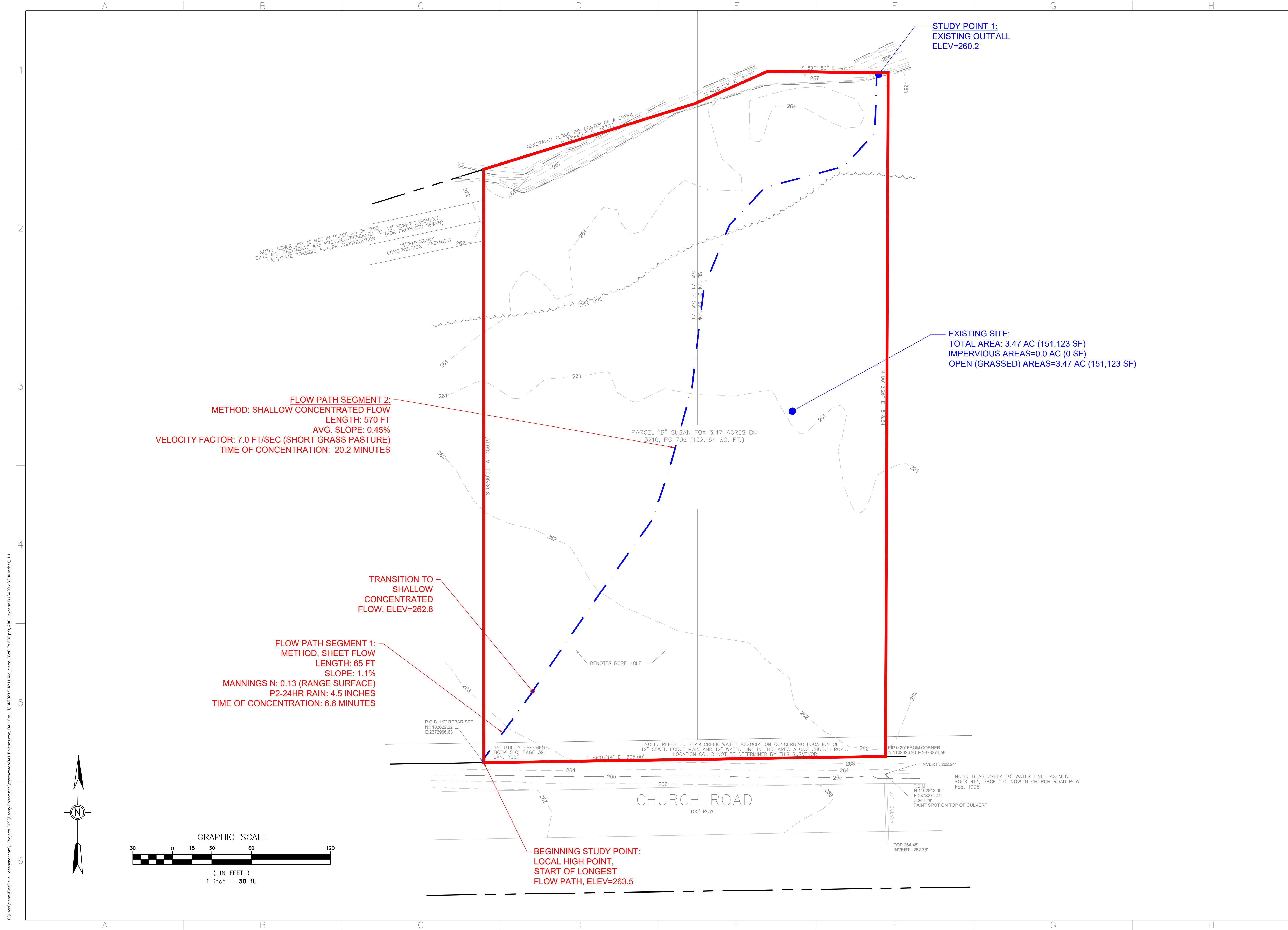
| No. | Description | Date |
|-----|---------------------------------|------------|
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

OWNER:
DANNY BOLANOS
115 HONOURS LANE,
MADISON MS 39110

PROJECT TITLE: **MAGNOLIA COMMONS**
SHEET TITLE:
**STORMWATER IMPACT STUDY MAP
PRE-DEVELOPMENT CONDITIONS**
SITE DEVELOPMENT

JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

SHEET NUMBER:
DA-1



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| No. | Description | Date |
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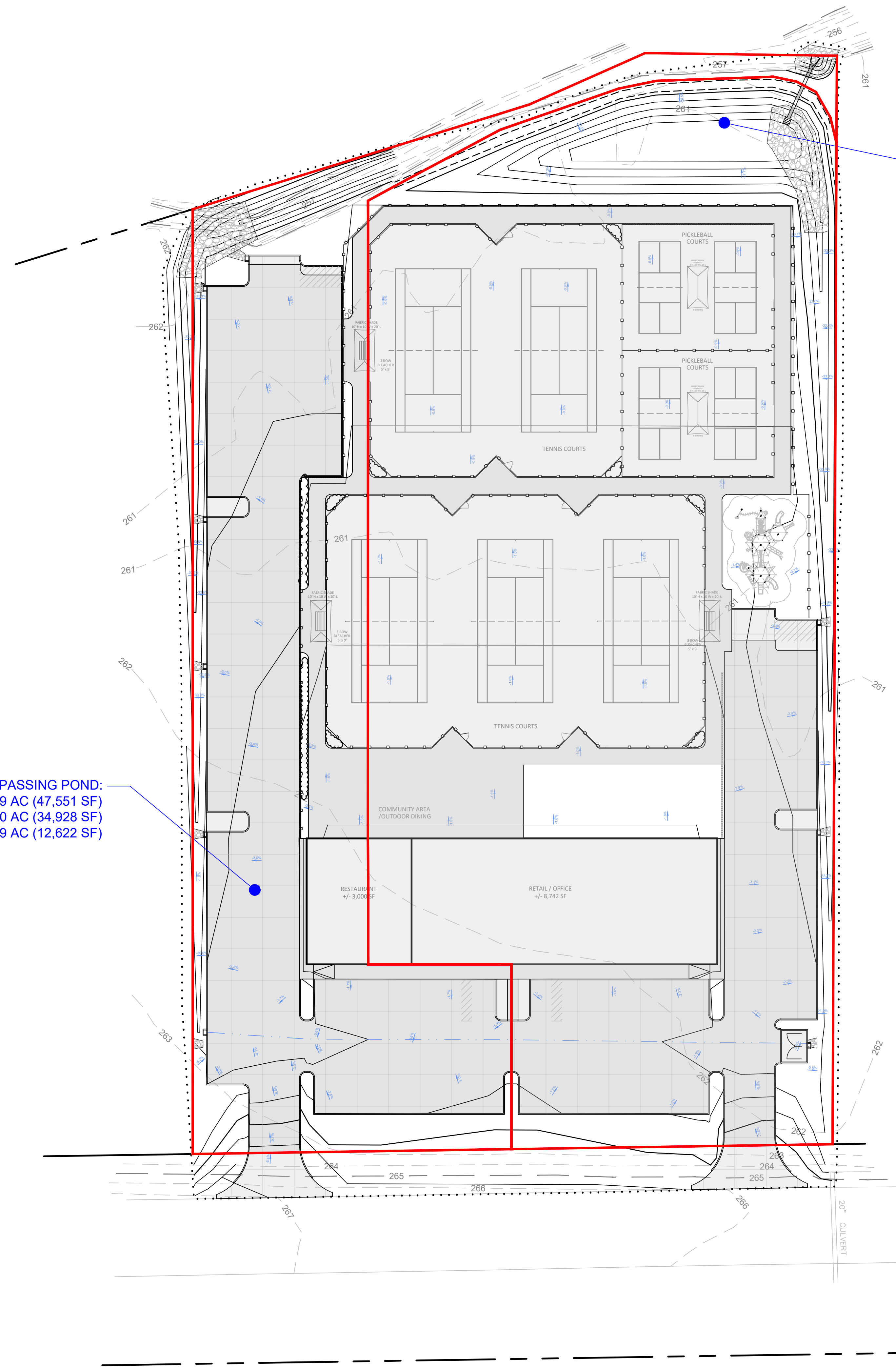
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OWNER:
 DANNY BOLANOS
 115 HONOURS LANE,
 MADISON MS 39110

PROJECT TITLE: MAGNOLIA COMMONS
SHEET TITLE:
 STORMWATER IMPACT STUDY MAP
 POST-DEVELOPMENT CONDITIONS
 SITE DEVELOPMENT

JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

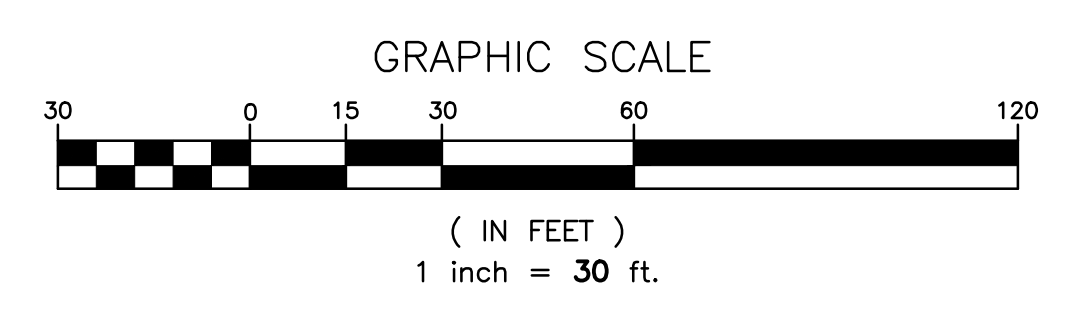
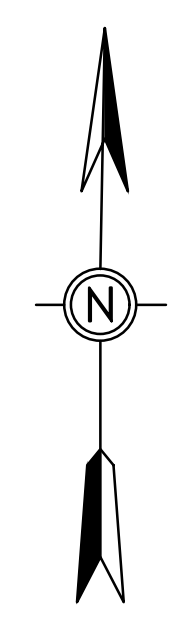
SHEET NUMBER:
 DA-2



TO POND:
 TOTAL AREA: 2.38 AC (103,573 SF)
 IMPERVIOUS AREAS = 1.81 AC (78,932 SF)
 OPEN (GRASSED) AREAS = 0.57 AC (24,641 SF)

AREAS BYPASSING POND:
 TOTAL AREA: 1.09 AC (47,551 SF)
 IMPERVIOUS AREAS=0.80 AC (34,928 SF)
 OPEN (GRASSED) AREAS=0.29 AC (12,622 SF)

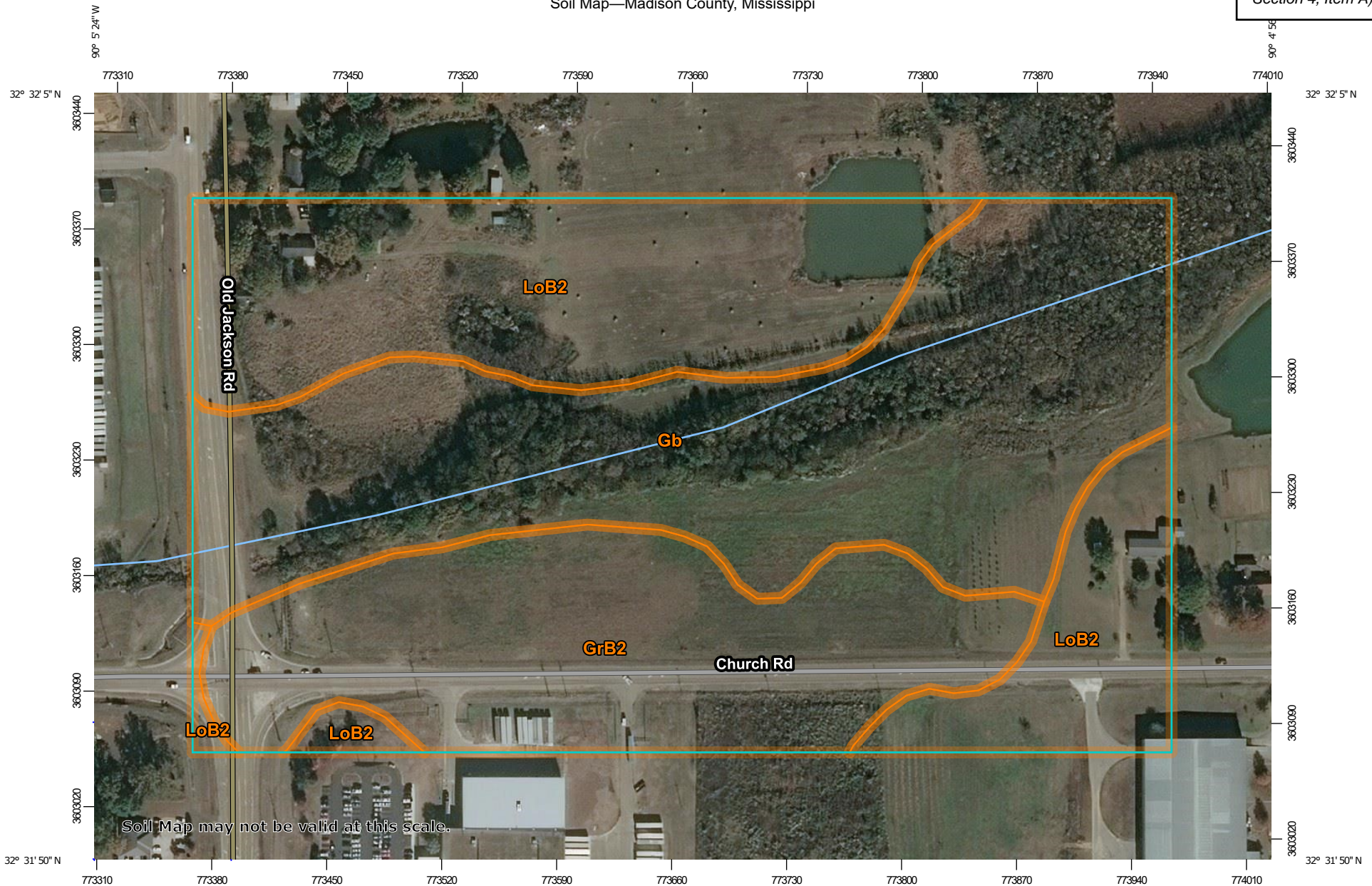
PROPOSED SITE:
 TOTAL AREA: 3.47 AC (151,123 SF)
 IMPERVIOUS AREAS=2.61 AC (113,862 SF)
 OPEN (GRASSED) AREAS=0.85 AC (37,261 SF)



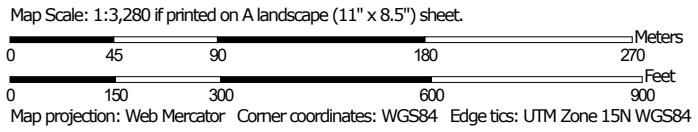
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Soil Map—Madison County, Mississippi

Section 4, Item A)




Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)




















Soils






 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Madison County, Mississippi
 Survey Area Data: Version 16, Sep 8, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|------------------------------------|---|--------------|----------------|
| Gb | Gillsburg silt loam | 19.9 | 40.1% |
| GrB2 | Grenada silt loam, 2 to 5 percent slopes, eroded | 13.0 | 26.1% |
| LoB2 | Loring silt loam, 2 to 5 percent slopes, moderately eroded, central | 16.8 | 33.8% |
| Totals for Area of Interest | | 49.6 | 100.0% |

National Flood Hazard Layer FIRMette



90°5'31"W 32°32'2"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

Section 4, Item A)

SEE FIS REPORT FOR DETAILED LEGEND AND INFORMATION

| | | |
|-----------------------------|--|--|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i> |
| | | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i> |
| | | Regulatory Floodway |
| OTHER AREAS OF FLOOD HAZARD | | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i> |
| | | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i> |
| | | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i> |
| | | Area with Flood Risk due to Levee <i>Zone D</i> |
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i> |
| | | Effective LOMRs |
| GENERAL STRUCTURES | | Area of Undetermined Flood Hazard <i>Zone D</i> |
| | | Channel, Culvert, or Storm Sewer |
| OTHER FEATURES | | Levee, Dike, or Floodwall |
| | | 20.2 Cross Sections with 1% Annual Chance |
| | | 17.5 Water Surface Elevation |
| | | Coastal Transect |
| | | Base Flood Elevation Line (BFE) |
| | | Limit of Study |
| MAP PANELS | | Jurisdiction Boundary |
| | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |
| | | Digital Data Available |
| | | No Digital Data Available |
| | | Unmapped |

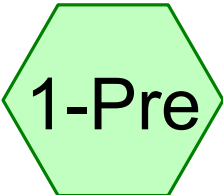


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/2/2022 at 9:12 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

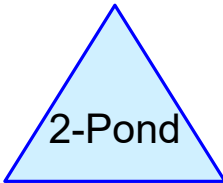
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community id, FIRM panel number, and FIRM effective date. Map is unmapped and unmodernized areas cannot be used for regulatory purposes.



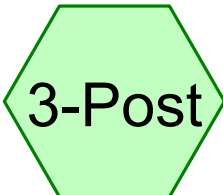
Pre Development



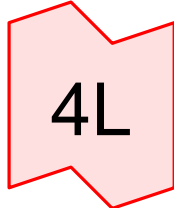
Post-Basin to Pond



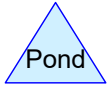
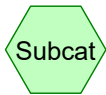
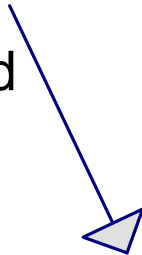
Pond



Post By-pass



Post Outfall



Routing Diagram for Bolanos STM
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Bolanos STM

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Page 2

Area Listing (all nodes)

| Area (acres) | CN | Description (subcatchment-numbers) |
|-----------------|-----------|--|
| 0.860 | 80 | >75% Grass cover, Good, HSG D (2-Post, 3-Post) |
| 3.470 | 84 | Pasture/grassland/range, Fair, HSG D (1-Pre) |
| 2.610 | 98 | Paved parking, HSG D (2-Post, 3-Post) |
| 6.940 | 89 | TOTAL AREA |

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Page 3

Soil Listing (all nodes)

| Area (acres) | Soil Group | Subcatchment Numbers |
|-----------------|---------------|-------------------------|
| 0.000 | HSG A | |
| 0.000 | HSG B | |
| 0.000 | HSG C | |
| 6.940 | HSG D | 1-Pre, 2-Post, 3-Post |
| 0.000 | Other | |
| 6.940 | | TOTAL AREA |

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Page 4

Ground Covers (all nodes)

| HSG-A (acres) | HSG-B (acres) | HSG-C (acres) | HSG-D (acres) | Other (acres) | Total (acres) | Ground Cover | Subcatchment Numbers |
|------------------|------------------|------------------|------------------|------------------|------------------|-------------------------------|---------------------------|
| 0.000 | 0.000 | 0.000 | 0.860 | 0.000 | 0.860 | >75% Grass cover, Good | 2-Pos t, 3-Pos t |
| 0.000 | 0.000 | 0.000 | 3.470 | 0.000 | 3.470 | Pasture/grassland/range, Fair | 1-Pre |
| 0.000 | 0.000 | 0.000 | 2.610 | 0.000 | 2.610 | Paved parking | 2-Pos t, 3-Pos t |
| 0.000 | 0.000 | 0.000 | 6.940 | 0.000 | 6.940 | TOTAL AREA | |

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Pipe Listing (all nodes)

| Line# | Node Number | In-Invert (feet) | Out-Invert (feet) | Length (feet) | Slope (ft/ft) | n | Diam/Width (inches) | Height (inches) | Inside-Fill (inches) |
|-------|-------------|------------------|-------------------|---------------|---------------|-------|---------------------|-----------------|----------------------|
| 1 | 2-Pond | 255.20 | 255.10 | 25.0 | 0.0040 | 0.013 | 15.0 | 0.0 | 0.0 |

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Type III 24-hr 2yr Rainfall=4.50"

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Page 6

Time span=0.00-48.00 hrs, dt=0.02 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1-Pre: Pre Development Runoff Area=3.470 ac 0.00% Impervious Runoff Depth=2.82"
Flow Length=635' Tc=26.8 min CN=84 Runoff=6.81 cfs 0.814 af

Subcatchment 2-Post: Post-Basin to Pond Runoff Area=2.380 ac 76.05% Impervious Runoff Depth=3.82"
Tc=5.0 min CN=94 Runoff=10.29 cfs 0.757 af

Subcatchment 3-Post: Post By-pass Runoff Area=1.090 ac 73.39% Impervious Runoff Depth=3.71"
Tc=5.0 min CN=93 Runoff=4.63 cfs 0.337 af

Pond 2-Pond: Pond Peak Elev=258.68' Storage=0.214 af Inflow=10.29 cfs 0.757 af
Outflow=3.30 cfs 0.756 af

Link 4L: Post Outfall Inflow=6.13 cfs 1.093 af
Primary=6.13 cfs 1.093 af

Total Runoff Area = 6.940 ac Runoff Volume = 1.908 af Average Runoff Depth = 3.30"
62.39% Pervious = 4.330 ac 37.61% Impervious = 2.610 ac

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Type III 24-hr 2yr Rainfall=4.50"

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Page 7

Summary for Subcatchment 1-Pre: Pre Development

Runoff = 6.81 cfs @ 12.36 hrs, Volume= 0.814 af, Depth= 2.82"

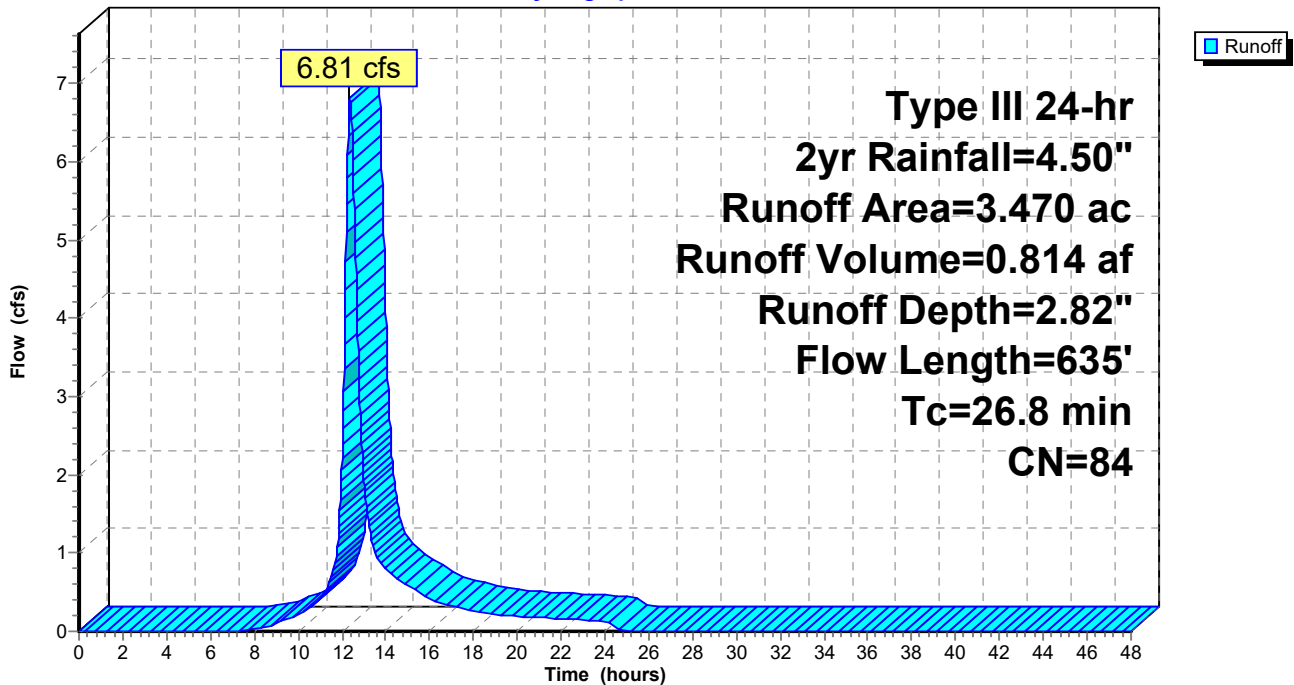
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 2yr Rainfall=4.50"

| Area (ac) | CN | Description |
|-----------|----|--------------------------------------|
| 3.470 | 84 | Pasture/grassland/range, Fair, HSG D |
| 3.470 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.6 | 65 | 0.0110 | 0.16 | | Sheet Flow, Range n= 0.130 P2= 4.50" |
| 20.2 | 570 | 0.0045 | 0.47 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 26.8 | 635 | Total | | | |

Subcatchment 1-Pre: Pre Development

Hydrograph



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Type III 24-hr 2yr Rainfall=4.50"

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Page 8

Summary for Subcatchment 2-Post: Post-Basin to Pond

Runoff = 10.29 cfs @ 12.07 hrs, Volume= 0.757 af, Depth= 3.82"

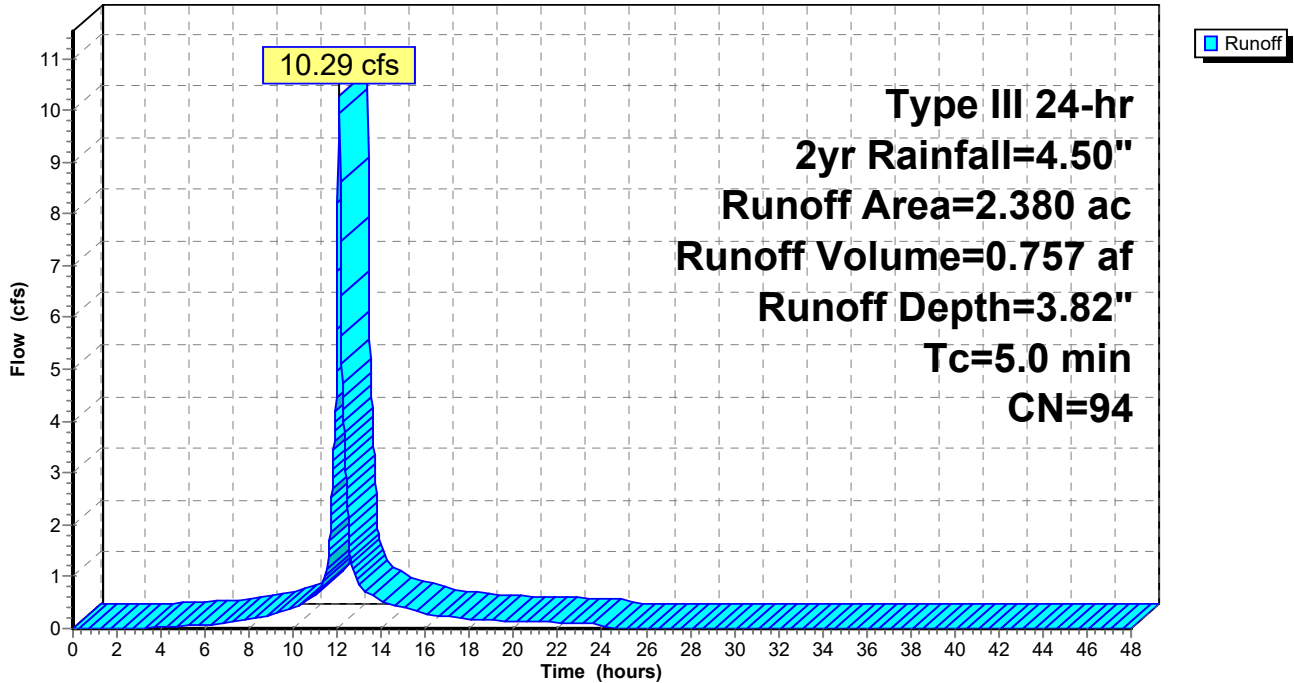
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 2yr Rainfall=4.50"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.570 | 80 | >75% Grass cover, Good, HSG D |
| 1.810 | 98 | Paved parking, HSG D |
| 2.380 | 94 | Weighted Average |
| 0.570 | | 23.95% Pervious Area |
| 1.810 | | 76.05% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment 2-Post: Post-Basin to Pond

Hydrograph



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Type III 24-hr 2yr Rainfall=4.50"

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Page 9

Summary for Subcatchment 3-Post: Post By-pass

Runoff = 4.63 cfs @ 12.07 hrs, Volume= 0.337 af, Depth= 3.71"

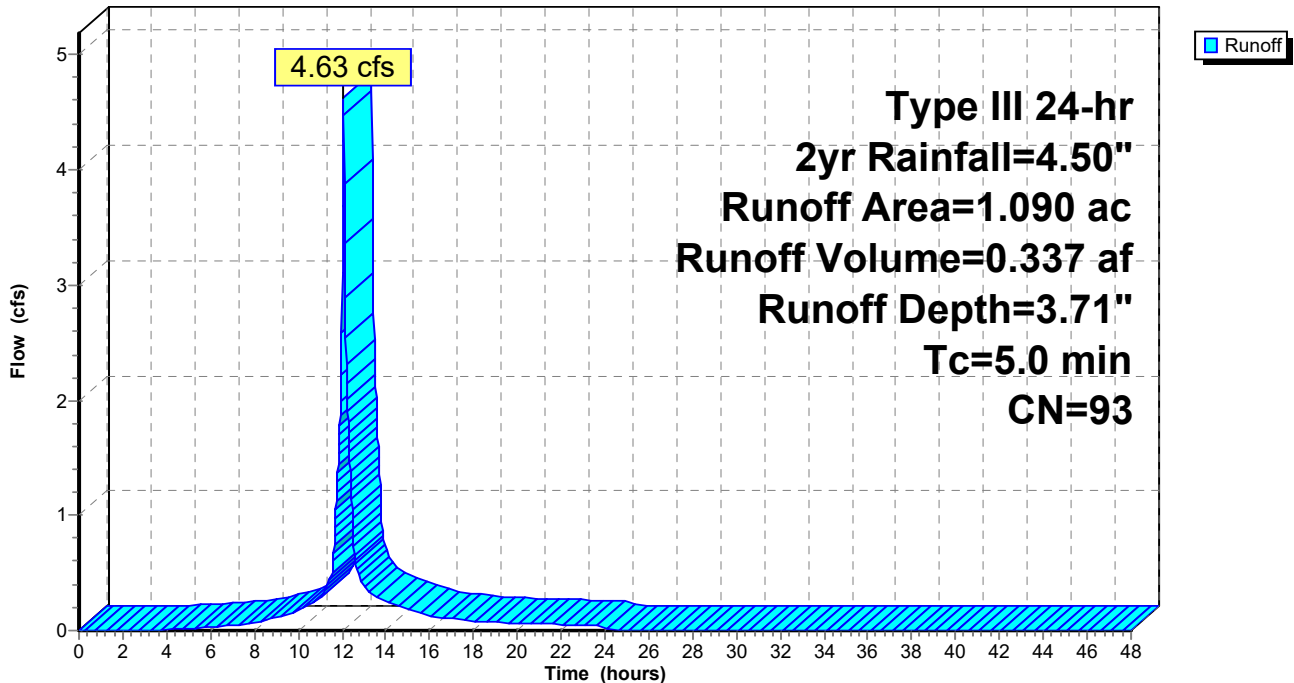
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 2yr Rainfall=4.50"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.290 | 80 | >75% Grass cover, Good, HSG D |
| 0.800 | 98 | Paved parking, HSG D |
| 1.090 | 93 | Weighted Average |
| 0.290 | | 26.61% Pervious Area |
| 0.800 | | 73.39% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment 3-Post: Post By-pass

Hydrograph



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Type III 24-hr 2yr Rainfall=4.50"

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Page 10

Summary for Pond 2-Pond: Pond

Inflow Area = 2.380 ac, 76.05% Impervious, Inflow Depth = 3.82" for 2yr event
 Inflow = 10.29 cfs @ 12.07 hrs, Volume= 0.757 af
 Outflow = 3.30 cfs @ 12.35 hrs, Volume= 0.756 af, Atten= 68%, Lag= 16.9 min
 Primary = 3.30 cfs @ 12.35 hrs, Volume= 0.756 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
 Peak Elev= 258.68' @ 12.35 hrs Surf.Area= 0.111 ac Storage= 0.214 af

Plug-Flow detention time= 40.3 min calculated for 0.755 af (100% of inflow)
 Center-of-Mass det. time= 39.4 min (815.0 - 775.6)

| Volume | Invert | Avail.Storage | Storage Description |
|----------------------------|-----------------------------|---------------------------------|--|
| #1 | 255.00' | 0.701 af | Custom Stage Data (Prismatic) Listed below (Recalc) |
| Elevation (feet) | Surf.Area (acres) | Inc.Store (acre-feet) | Cum.Store (acre-feet) |
| 255.00 | 0.001 | 0.000 | 0.000 |
| 256.00 | 0.041 | 0.021 | 0.021 |
| 257.00 | 0.062 | 0.052 | 0.073 |
| 258.00 | 0.086 | 0.074 | 0.146 |
| 259.00 | 0.123 | 0.105 | 0.251 |
| 260.00 | 0.210 | 0.166 | 0.418 |
| 261.00 | 0.356 | 0.283 | 0.701 |

| Device | Routing | Invert | Outlet Devices |
|--------|----------|---------|--|
| #1 | Primary | 255.20' | 15.0" Round Culvert L= 25.0' RCP, groove end w/headwall, Ke= 0.200 Inlet / Outlet Invert= 255.20' / 255.10' S= 0.0040 ' S= 0.0040 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| #2 | Device 1 | 255.20' | 6.0" Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 258.00' | 12.0" Vert. Orifice/Grate C= 0.600 |
| #4 | Device 1 | 260.10' | 48.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #5 | Primary | 260.50' | 250.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88 |

Primary OutFlow Max=3.30 cfs @ 12.35 hrs HW=258.68' (Free Discharge)

- 1=Culvert (Passes 3.30 cfs of 11.26 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 1.70 cfs @ 8.66 fps)
- 3=Orifice/Grate (Orifice Controls 1.60 cfs @ 2.81 fps)
- 4=Orifice/Grate (Controls 0.00 cfs)
- 5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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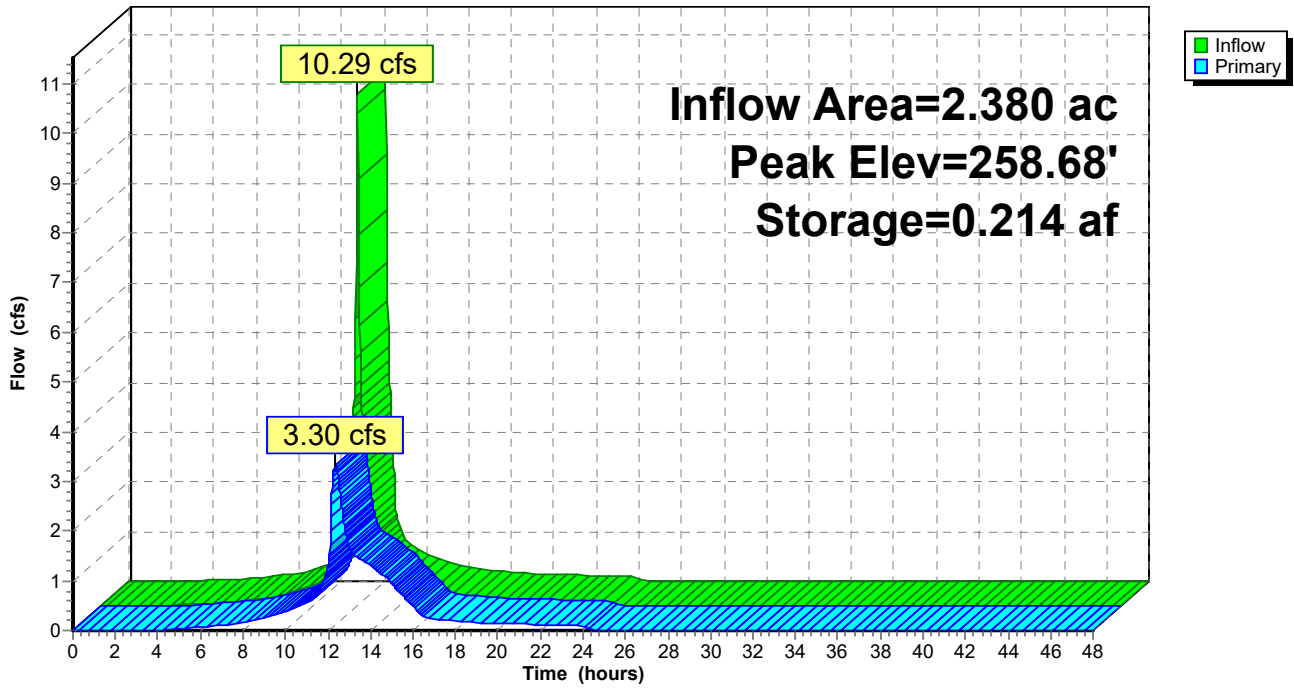
Type III 24-hr 2yr Rainfall=4.50"

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Page 11

Pond 2-Pond: Pond

Hydrograph



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Type III 24-hr 2yr Rainfall=4.50"

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Page 12

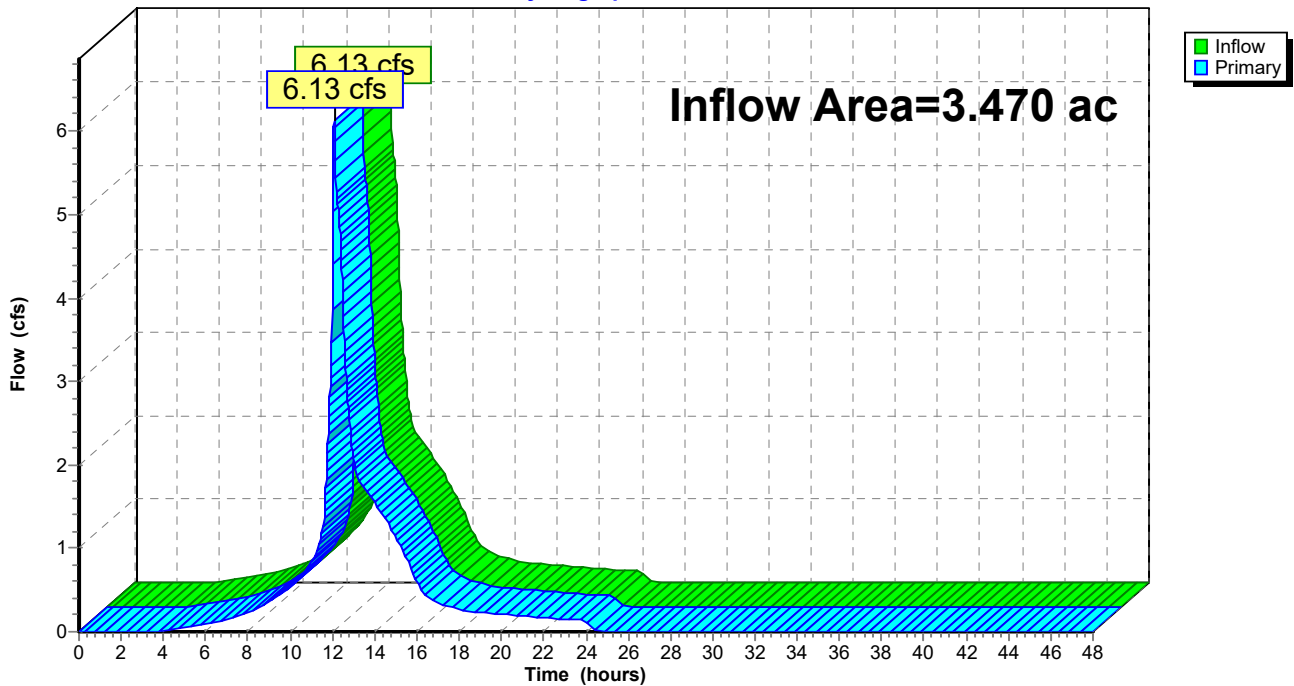
Summary for Link 4L: Post Outfall

Inflow Area = 3.470 ac, 75.22% Impervious, Inflow Depth = 3.78" for 2yr event
Inflow = 6.13 cfs @ 12.08 hrs, Volume= 1.093 af
Primary = 6.13 cfs @ 12.08 hrs, Volume= 1.093 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

Link 4L: Post Outfall

Hydrograph



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Type III 24-hr 5yr Rainfall=5.70"

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Page 13

Time span=0.00-48.00 hrs, dt=0.02 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1-Pre: Pre Development Runoff Area=3.470 ac 0.00% Impervious Runoff Depth=3.92"
Flow Length=635' Tc=26.8 min CN=84 Runoff=9.41 cfs 1.133 af

Subcatchment 2-Post: Post-Basin to Pond Runoff Area=2.380 ac 76.05% Impervious Runoff Depth=5.00"
Tc=5.0 min CN=94 Runoff=13.28 cfs 0.992 af

Subcatchment 3-Post: Post By-pass Runoff Area=1.090 ac 73.39% Impervious Runoff Depth=4.89"
Tc=5.0 min CN=93 Runoff=6.01 cfs 0.444 af

Pond 2-Pond: Pond Peak Elev=259.13' Storage=0.267 af Inflow=13.28 cfs 0.992 af
Outflow=4.81 cfs 0.991 af

Link 4L: Post Outfall Inflow=9.15 cfs 1.434 af
Primary=9.15 cfs 1.434 af

Total Runoff Area = 6.940 ac Runoff Volume = 2.568 af Average Runoff Depth = 4.44"
62.39% Pervious = 4.330 ac 37.61% Impervious = 2.610 ac

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Type III 24-hr 5yr Rainfall=5.70"

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Page 14

Summary for Subcatchment 1-Pre: Pre Development

Runoff = 9.41 cfs @ 12.36 hrs, Volume= 1.133 af, Depth= 3.92"

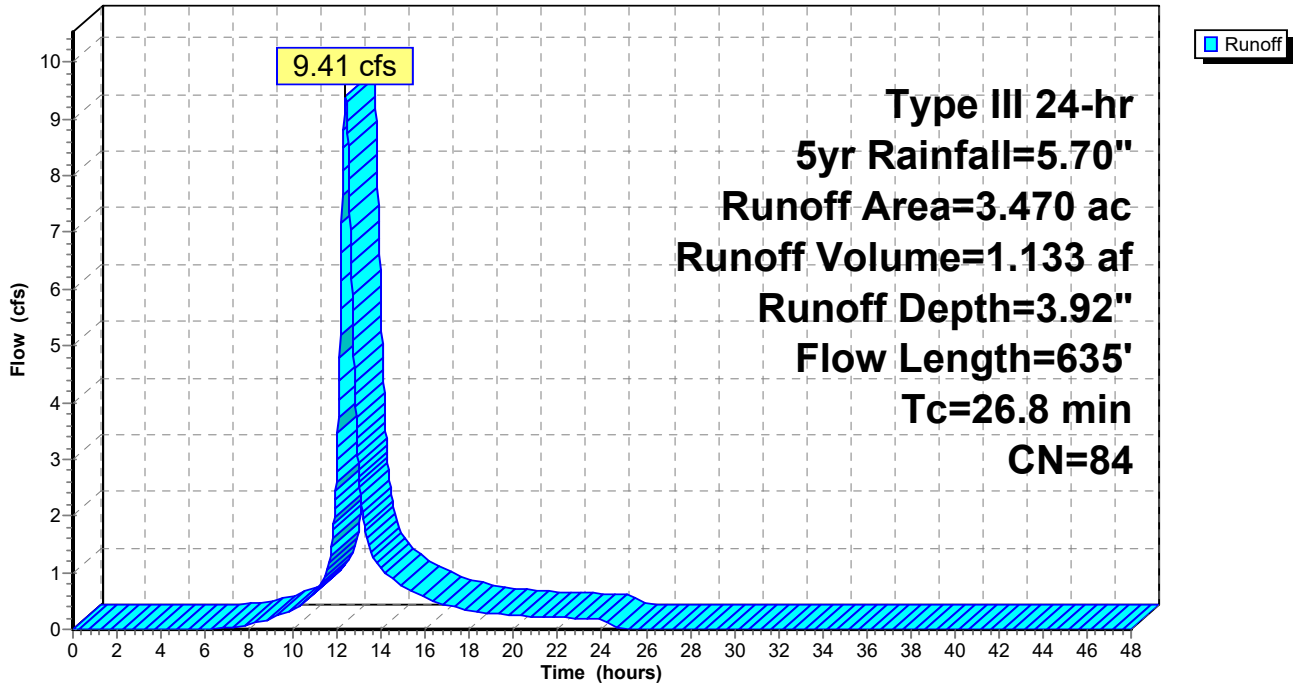
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 5yr Rainfall=5.70"

| Area (ac) | CN | Description |
|-----------|----|--------------------------------------|
| 3.470 | 84 | Pasture/grassland/range, Fair, HSG D |
| 3.470 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.6 | 65 | 0.0110 | 0.16 | | Sheet Flow, Range n= 0.130 P2= 4.50" |
| 20.2 | 570 | 0.0045 | 0.47 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 26.8 | 635 | Total | | | |

Subcatchment 1-Pre: Pre Development

Hydrograph



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Type III 24-hr 5yr Rainfall=5.70"

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Page 15

Summary for Subcatchment 2-Post: Post-Basin to Pond

Runoff = 13.28 cfs @ 12.07 hrs, Volume= 0.992 af, Depth= 5.00"

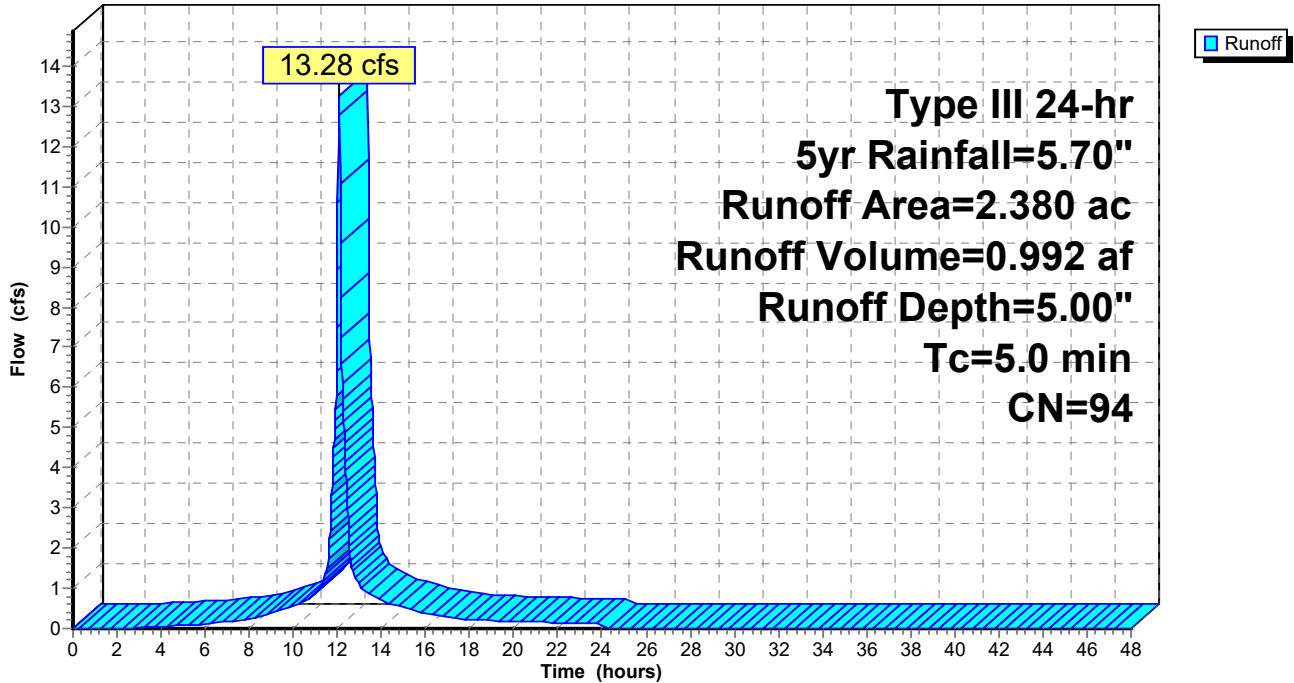
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 5yr Rainfall=5.70"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.570 | 80 | >75% Grass cover, Good, HSG D |
| 1.810 | 98 | Paved parking, HSG D |
| 2.380 | 94 | Weighted Average |
| 0.570 | | 23.95% Pervious Area |
| 1.810 | | 76.05% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment 2-Post: Post-Basin to Pond

Hydrograph



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Type III 24-hr 5yr Rainfall=5.70"

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Page 16

Summary for Subcatchment 3-Post: Post By-pass

Runoff = 6.01 cfs @ 12.07 hrs, Volume= 0.444 af, Depth= 4.89"

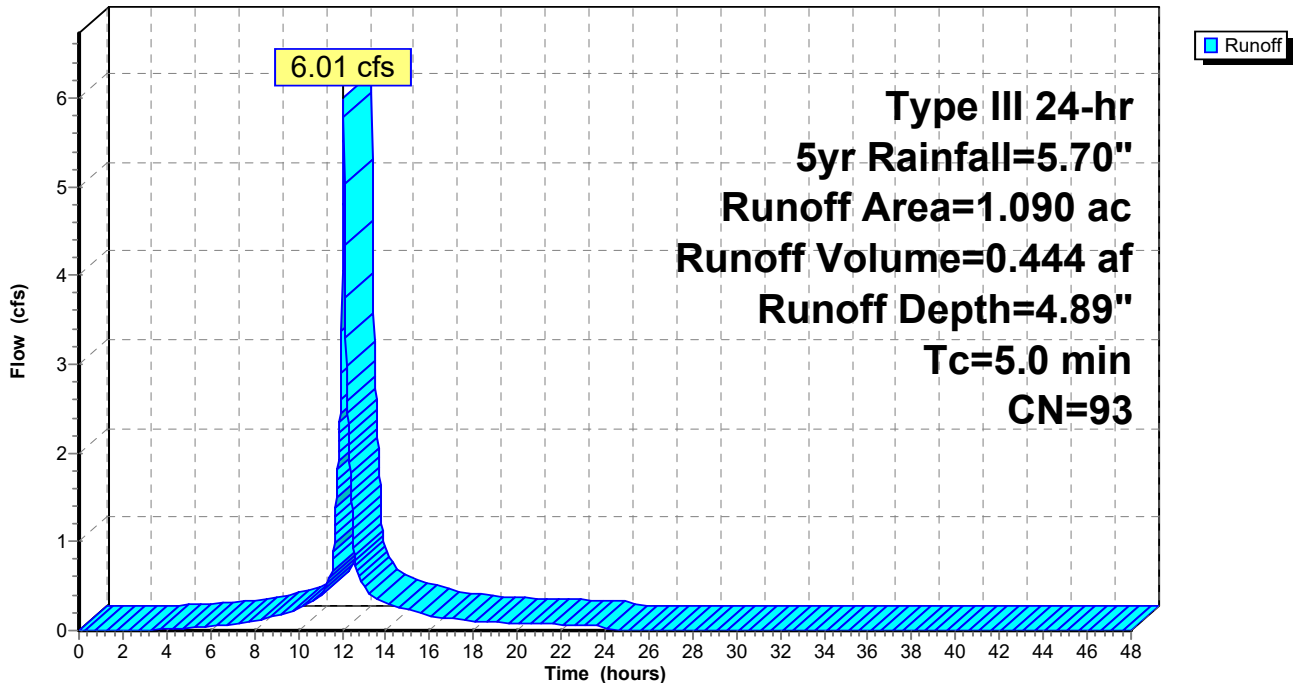
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 5yr Rainfall=5.70"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.290 | 80 | >75% Grass cover, Good, HSG D |
| 0.800 | 98 | Paved parking, HSG D |
| 1.090 | 93 | Weighted Average |
| 0.290 | | 26.61% Pervious Area |
| 0.800 | | 73.39% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment 3-Post: Post By-pass

Hydrograph



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Type III 24-hr 5yr Rainfall=5.70"

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Page 17

Summary for Pond 2-Pond: Pond

Inflow Area = 2.380 ac, 76.05% Impervious, Inflow Depth = 5.00" for 5yr event
 Inflow = 13.28 cfs @ 12.07 hrs, Volume= 0.992 af
 Outflow = 4.81 cfs @ 12.31 hrs, Volume= 0.991 af, Atten= 64%, Lag= 14.1 min
 Primary = 4.81 cfs @ 12.31 hrs, Volume= 0.991 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
 Peak Elev= 259.13' @ 12.31 hrs Surf.Area= 0.134 ac Storage= 0.267 af

Plug-Flow detention time= 39.1 min calculated for 0.990 af (100% of inflow)
 Center-of-Mass det. time= 38.5 min (807.4 - 768.9)

| Volume | Invert | Avail.Storage | Storage Description |
|------------------|-------------------|-----------------------|--|
| #1 | 255.00' | 0.701 af | Custom Stage Data (Prismatic) Listed below (Recalc) |
| Elevation (feet) | Surf.Area (acres) | Inc.Store (acre-feet) | Cum.Store (acre-feet) |
| 255.00 | 0.001 | 0.000 | 0.000 |
| 256.00 | 0.041 | 0.021 | 0.021 |
| 257.00 | 0.062 | 0.052 | 0.073 |
| 258.00 | 0.086 | 0.074 | 0.146 |
| 259.00 | 0.123 | 0.105 | 0.251 |
| 260.00 | 0.210 | 0.166 | 0.418 |
| 261.00 | 0.356 | 0.283 | 0.701 |

| Device | Routing | Invert | Outlet Devices |
|--------|----------|---------|--|
| #1 | Primary | 255.20' | 15.0" Round Culvert L= 25.0' RCP, groove end w/headwall, Ke= 0.200 Inlet / Outlet Invert= 255.20' / 255.10' S= 0.0040 ' S= 0.0040 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| #2 | Device 1 | 255.20' | 6.0" Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 258.00' | 12.0" Vert. Orifice/Grate C= 0.600 |
| #4 | Device 1 | 260.10' | 48.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #5 | Primary | 260.50' | 250.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88 |

Primary OutFlow Max=4.81 cfs @ 12.31 hrs HW=259.13' (Free Discharge)

- 1=Culvert (Passes 4.81 cfs of 12.29 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 1.81 cfs @ 9.23 fps)
- 3=Orifice/Grate (Orifice Controls 2.99 cfs @ 3.81 fps)
- 4=Orifice/Grate (Controls 0.00 cfs)
- 5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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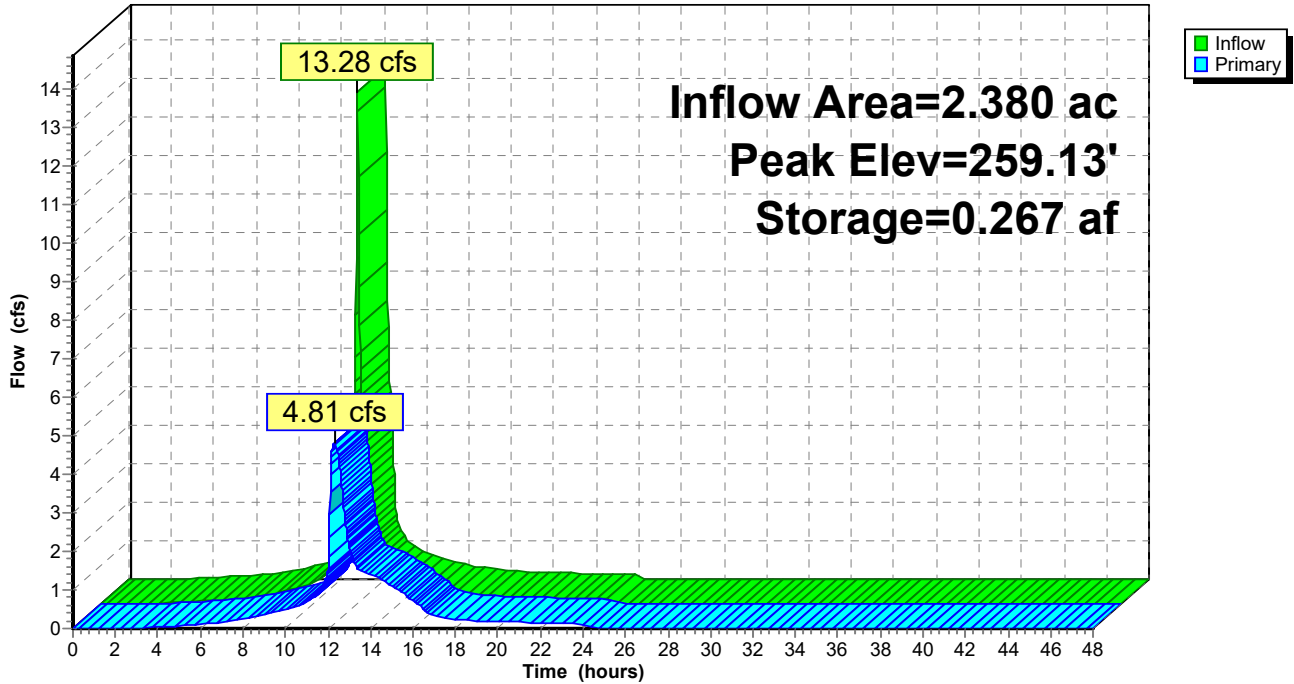
Type III 24-hr 5yr Rainfall=5.70"

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Page 18

Pond 2-Pond: Pond

Hydrograph



Bolanos STM

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Type III 24-hr 5yr Rainfall=5.70"

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Page 19

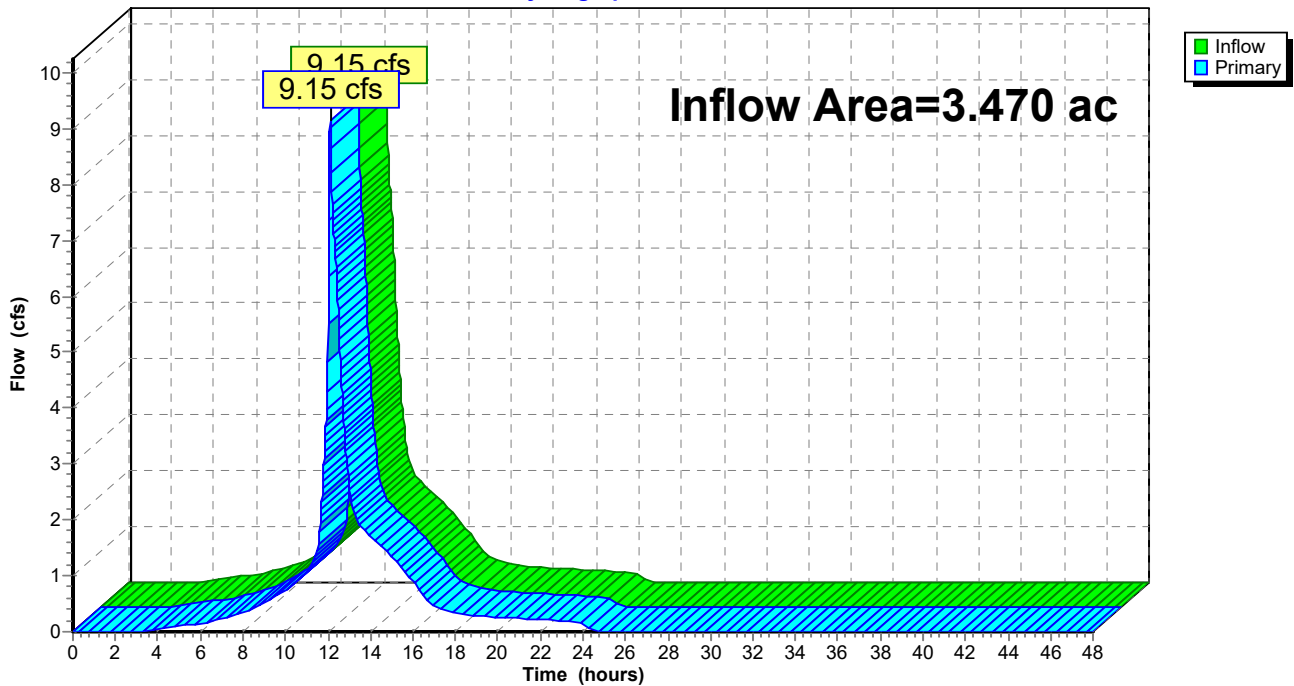
Summary for Link 4L: Post Outfall

Inflow Area = 3.470 ac, 75.22% Impervious, Inflow Depth = 4.96" for 5yr event
Inflow = 9.15 cfs @ 12.10 hrs, Volume= 1.434 af
Primary = 9.15 cfs @ 12.10 hrs, Volume= 1.434 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

Link 4L: Post Outfall

Hydrograph



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Type III 24-hr 10yr Rainfall=6.70"

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Page 20

Time span=0.00-48.00 hrs, dt=0.02 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1-Pre: Pre Development Runoff Area=3.470 ac 0.00% Impervious Runoff Depth=4.86"
Flow Length=635' Tc=26.8 min CN=84 Runoff=11.58 cfs 1.404 af

Subcatchment 2-Post: Post-Basin to Pond Runoff Area=2.380 ac 76.05% Impervious Runoff Depth=5.99"
Tc=5.0 min CN=94 Runoff=15.75 cfs 1.188 af

Subcatchment 3-Post: Post By-pass Runoff Area=1.090 ac 73.39% Impervious Runoff Depth=5.87"
Tc=5.0 min CN=93 Runoff=7.15 cfs 0.534 af

Pond 2-Pond: Pond Peak Elev=259.48' Storage=0.320 af Inflow=15.75 cfs 1.188 af
Outflow=5.63 cfs 1.187 af

Link 4L: Post Outfall Inflow=11.53 cfs 1.721 af
Primary=11.53 cfs 1.721 af

Total Runoff Area = 6.940 ac Runoff Volume = 3.126 af Average Runoff Depth = 5.40"
62.39% Pervious = 4.330 ac 37.61% Impervious = 2.610 ac

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Type III 24-hr 10yr Rainfall=6.70"

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Page 21

Summary for Subcatchment 1-Pre: Pre Development

Runoff = 11.58 cfs @ 12.36 hrs, Volume= 1.404 af, Depth= 4.86"

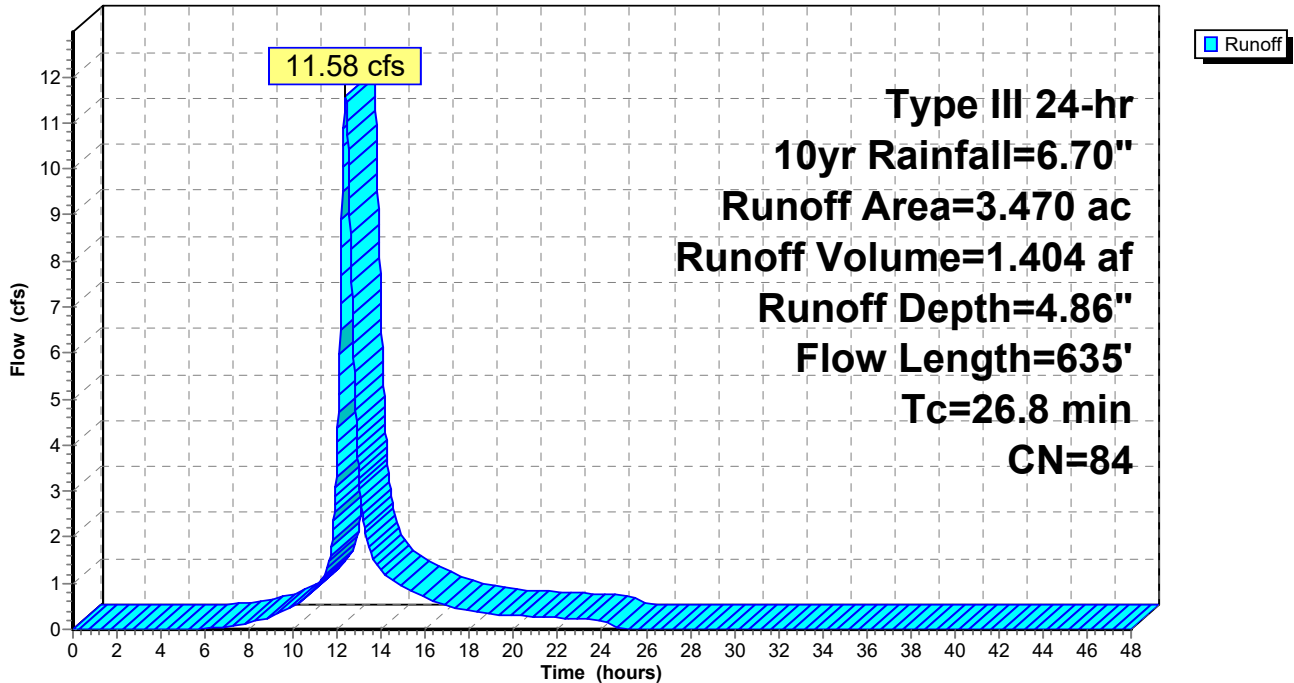
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 10yr Rainfall=6.70"

| Area (ac) | CN | Description |
|-----------|----|--------------------------------------|
| 3.470 | 84 | Pasture/grassland/range, Fair, HSG D |
| 3.470 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.6 | 65 | 0.0110 | 0.16 | | Sheet Flow, Range n= 0.130 P2= 4.50" |
| 20.2 | 570 | 0.0045 | 0.47 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 26.8 | 635 | Total | | | |

Subcatchment 1-Pre: Pre Development

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Type III 24-hr 10yr Rainfall=6.70"

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Page 22

Summary for Subcatchment 2-Post: Post-Basin to Pond

Runoff = 15.75 cfs @ 12.07 hrs, Volume= 1.188 af, Depth= 5.99"

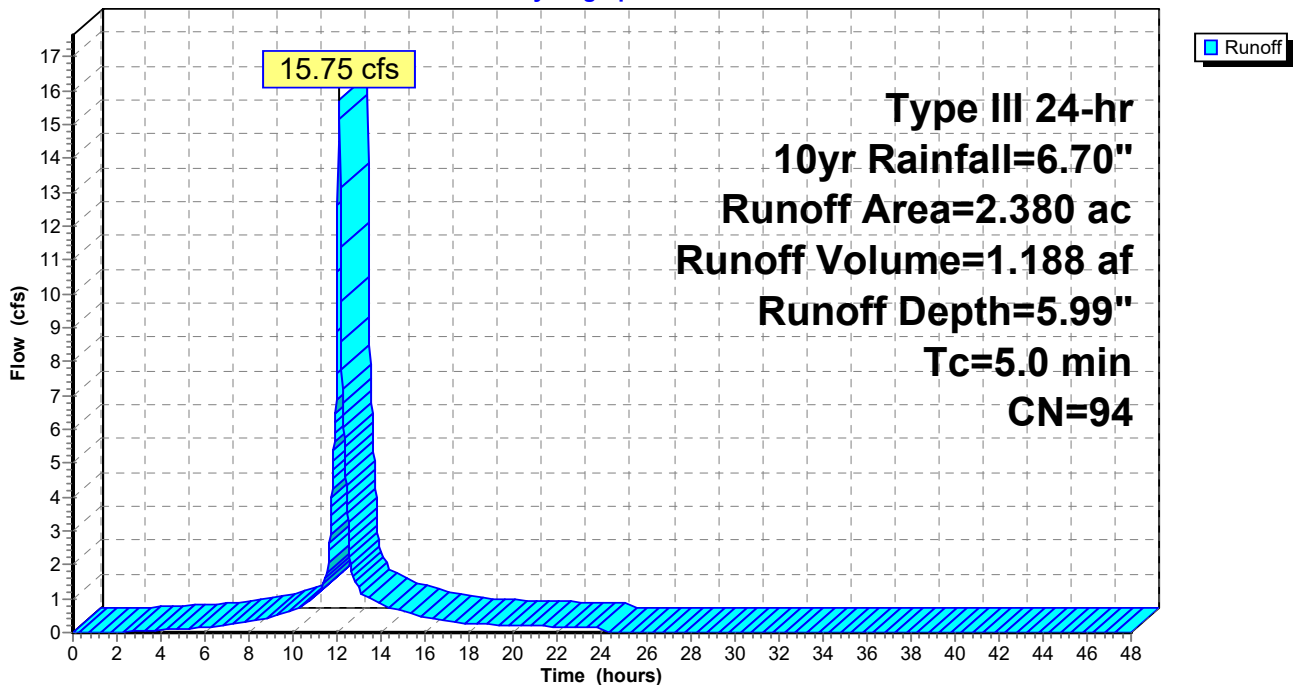
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 10yr Rainfall=6.70"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.570 | 80 | >75% Grass cover, Good, HSG D |
| 1.810 | 98 | Paved parking, HSG D |
| 2.380 | 94 | Weighted Average |
| 0.570 | | 23.95% Pervious Area |
| 1.810 | | 76.05% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment 2-Post: Post-Basin to Pond

Hydrograph



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Type III 24-hr 10yr Rainfall=6.70"

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Page 23

Summary for Subcatchment 3-Post: Post By-pass

Runoff = 7.15 cfs @ 12.07 hrs, Volume= 0.534 af, Depth= 5.87"

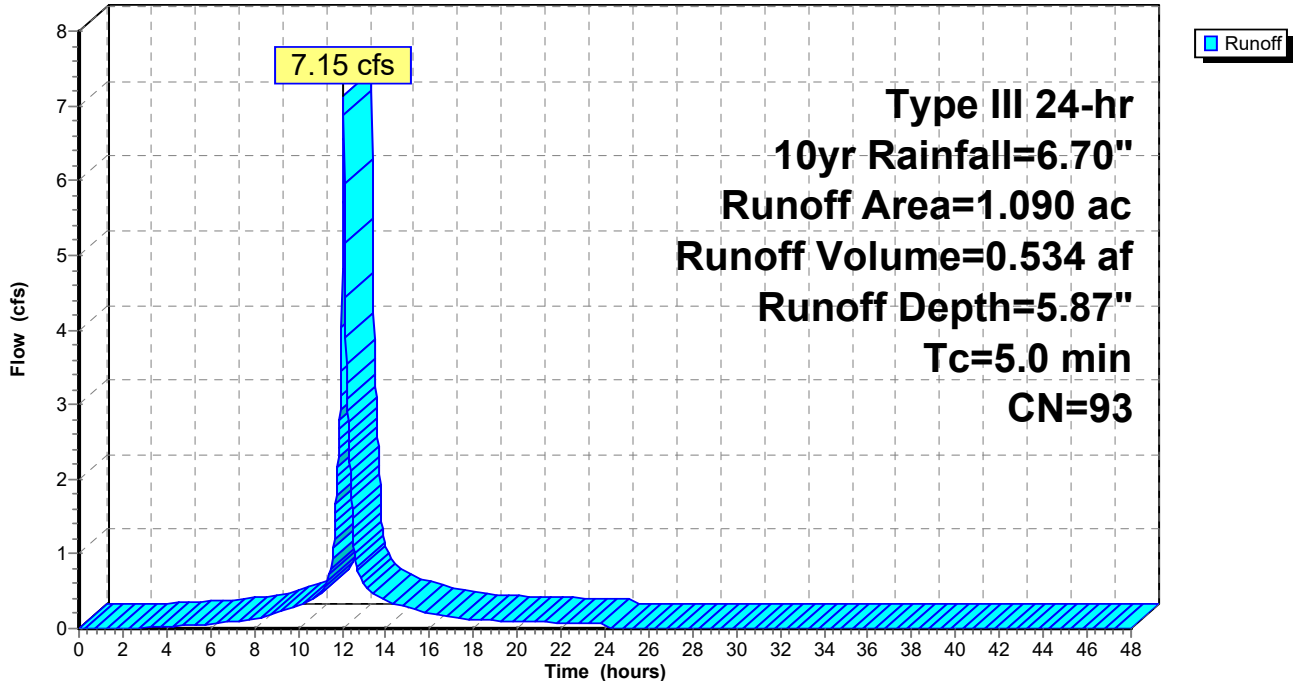
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 10yr Rainfall=6.70"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.290 | 80 | >75% Grass cover, Good, HSG D |
| 0.800 | 98 | Paved parking, HSG D |
| 1.090 | 93 | Weighted Average |
| 0.290 | | 26.61% Pervious Area |
| 0.800 | | 73.39% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment 3-Post: Post By-pass

Hydrograph



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Type III 24-hr 10yr Rainfall=6.70"

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Page 24

Summary for Pond 2-Pond: Pond

Inflow Area = 2.380 ac, 76.05% Impervious, Inflow Depth = 5.99" for 10yr event
 Inflow = 15.75 cfs @ 12.07 hrs, Volume= 1.188 af
 Outflow = 5.63 cfs @ 12.31 hrs, Volume= 1.187 af, Atten= 64%, Lag= 14.3 min
 Primary = 5.63 cfs @ 12.31 hrs, Volume= 1.187 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
 Peak Elev= 259.48' @ 12.31 hrs Surf.Area= 0.164 ac Storage= 0.320 af

Plug-Flow detention time= 39.4 min calculated for 1.187 af (100% of inflow)
 Center-of-Mass det. time= 38.6 min (803.3 - 764.7)

| Volume | Invert | Avail.Storage | Storage Description |
|------------------|-------------------|-----------------------|--|
| #1 | 255.00' | 0.701 af | Custom Stage Data (Prismatic) Listed below (Recalc) |
| Elevation (feet) | Surf.Area (acres) | Inc.Store (acre-feet) | Cum.Store (acre-feet) |
| 255.00 | 0.001 | 0.000 | 0.000 |
| 256.00 | 0.041 | 0.021 | 0.021 |
| 257.00 | 0.062 | 0.052 | 0.073 |
| 258.00 | 0.086 | 0.074 | 0.146 |
| 259.00 | 0.123 | 0.105 | 0.251 |
| 260.00 | 0.210 | 0.166 | 0.418 |
| 261.00 | 0.356 | 0.283 | 0.701 |

| Device | Routing | Invert | Outlet Devices |
|--------|----------|---------|--|
| #1 | Primary | 255.20' | 15.0" Round Culvert L= 25.0' RCP, groove end w/headwall, Ke= 0.200 Inlet / Outlet Invert= 255.20' / 255.10' S= 0.0040 ' S= 0.0040 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| #2 | Device 1 | 255.20' | 6.0" Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 258.00' | 12.0" Vert. Orifice/Grate C= 0.600 |
| #4 | Device 1 | 260.10' | 48.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #5 | Primary | 260.50' | 250.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88 |

Primary OutFlow Max=5.63 cfs @ 12.31 hrs HW=259.48' (Free Discharge)

- 1=Culvert (Passes 5.63 cfs of 13.04 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 1.90 cfs @ 9.66 fps)
- 3=Orifice/Grate (Orifice Controls 3.74 cfs @ 4.76 fps)
- 4=Orifice/Grate (Controls 0.00 cfs)
- 5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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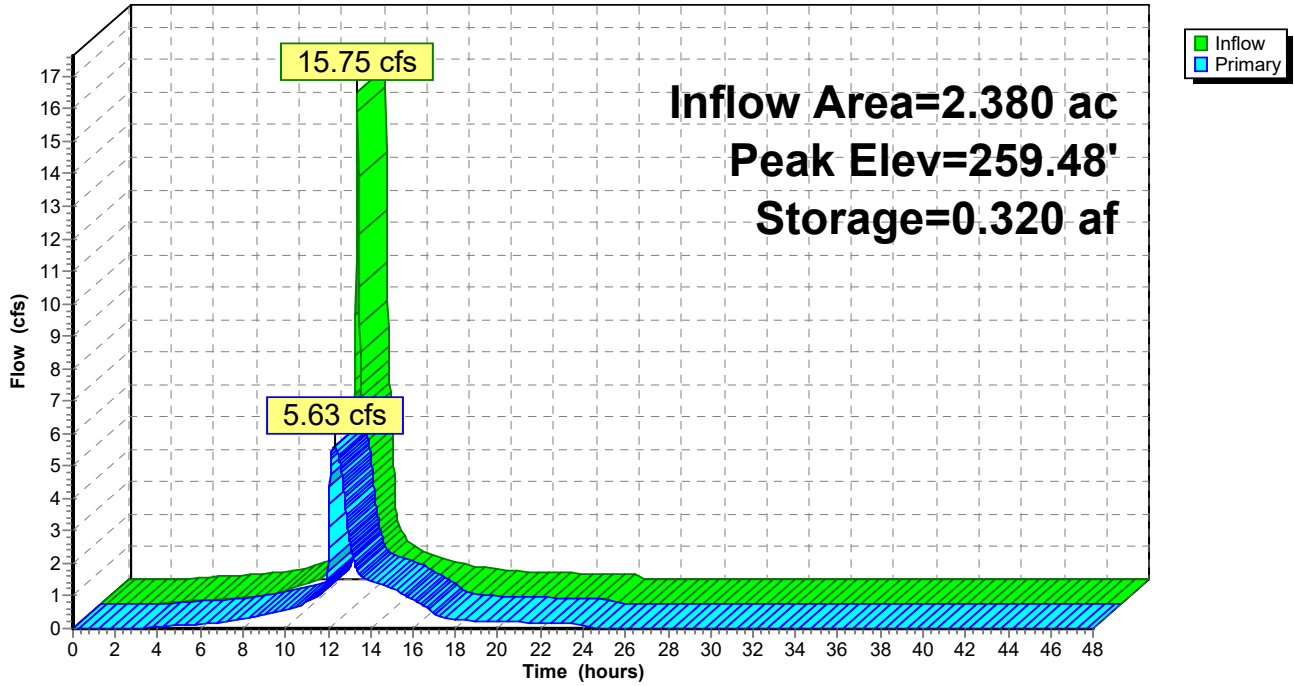
Type III 24-hr 10yr Rainfall=6.70"

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Page 25

Pond 2-Pond: Pond

Hydrograph



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Type III 24-hr 10yr Rainfall=6.70"

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Page 26

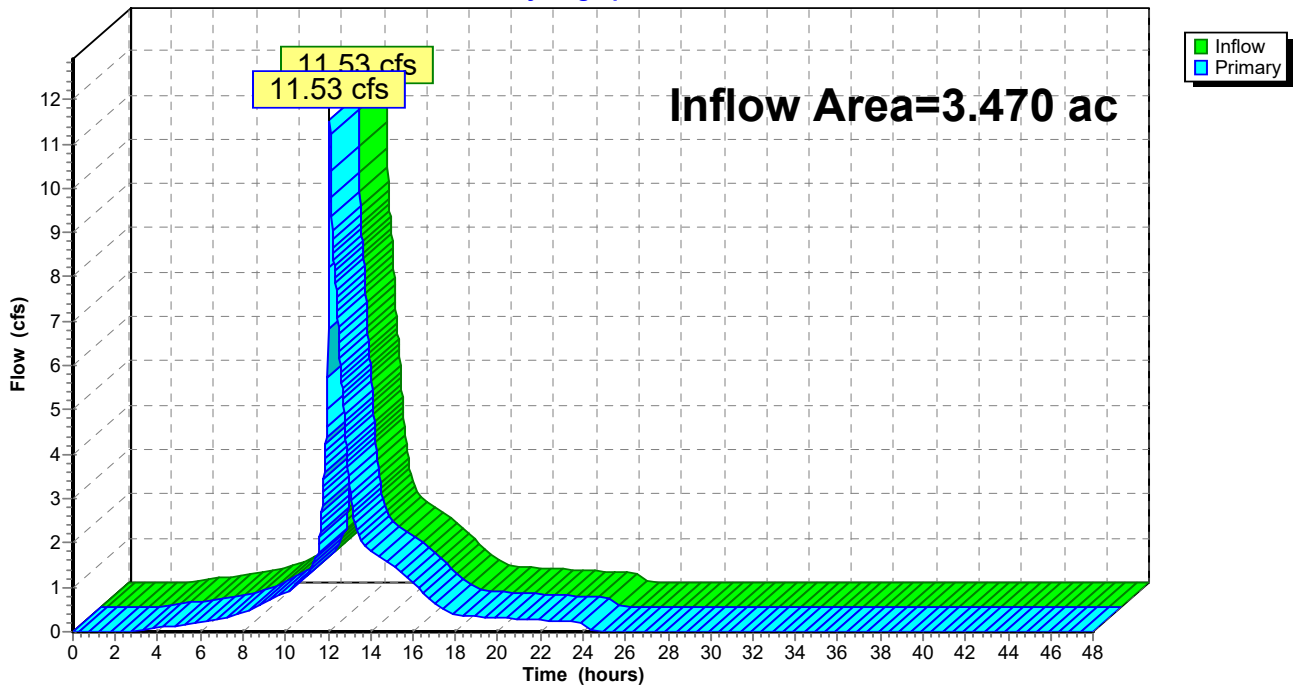
Summary for Link 4L: Post Outfall

Inflow Area = 3.470 ac, 75.22% Impervious, Inflow Depth = 5.95" for 10yr event
Inflow = 11.53 cfs @ 12.09 hrs, Volume= 1.721 af
Primary = 11.53 cfs @ 12.09 hrs, Volume= 1.721 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

Link 4L: Post Outfall

Hydrograph



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Type III 24-hr 25yr Rainfall=7.70"

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Page 27

Time span=0.00-48.00 hrs, dt=0.02 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1-Pre: Pre Development Runoff Area=3.470 ac 0.00% Impervious Runoff Depth=5.81"
Flow Length=635' Tc=26.8 min CN=84 Runoff=13.76 cfs 1.679 af

Subcatchment 2-Post: Post-Basin to Pond Runoff Area=2.380 ac 76.05% Impervious Runoff Depth=6.98"
Tc=5.0 min CN=94 Runoff=18.21 cfs 1.385 af

Subcatchment 3-Post: Post By-pass Runoff Area=1.090 ac 73.39% Impervious Runoff Depth=6.87"
Tc=5.0 min CN=93 Runoff=8.28 cfs 0.624 af

Pond 2-Pond: Pond Peak Elev=259.79' Storage=0.376 af Inflow=18.21 cfs 1.385 af
Outflow=6.27 cfs 1.384 af

Link 4L: Post Outfall Inflow=13.42 cfs 2.008 af
Primary=13.42 cfs 2.008 af

Total Runoff Area = 6.940 ac Runoff Volume = 3.688 af Average Runoff Depth = 6.38"
62.39% Pervious = 4.330 ac 37.61% Impervious = 2.610 ac

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Type III 24-hr 25yr Rainfall=7.70"

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Page 28

Summary for Subcatchment 1-Pre: Pre Development

Runoff = 13.76 cfs @ 12.36 hrs, Volume= 1.679 af, Depth= 5.81"

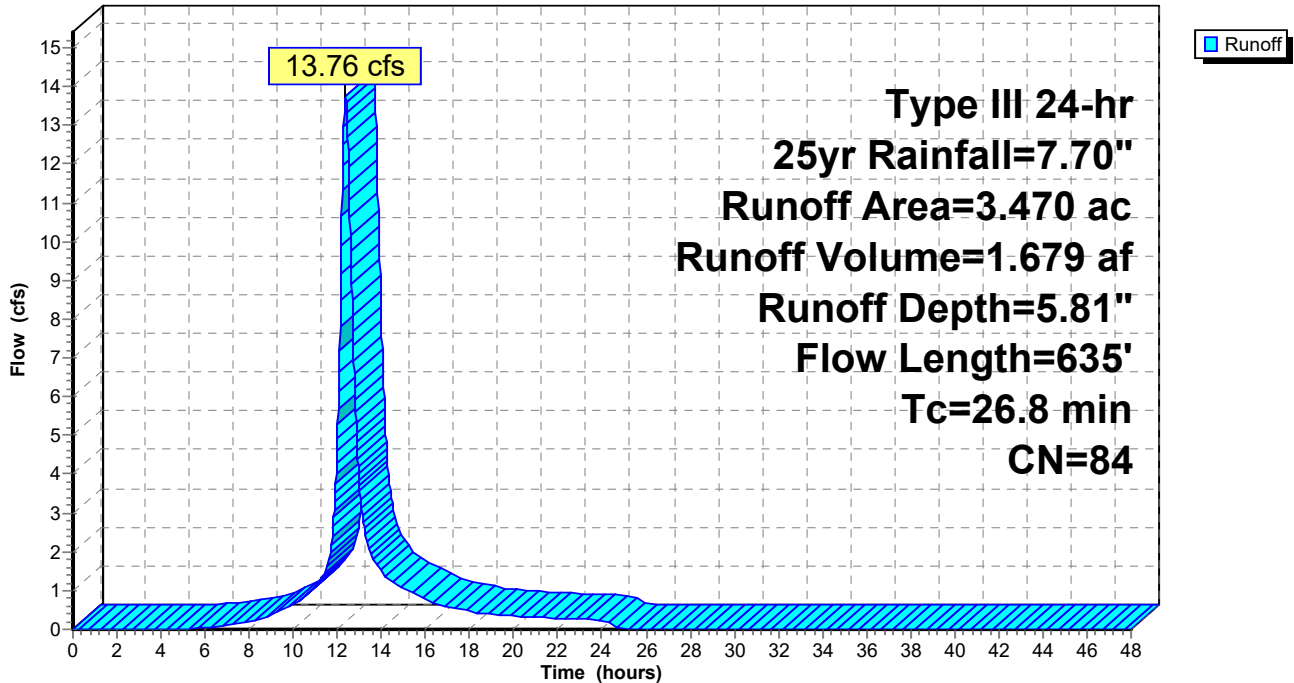
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 25yr Rainfall=7.70"

| Area (ac) | CN | Description |
|-----------|----|--------------------------------------|
| 3.470 | 84 | Pasture/grassland/range, Fair, HSG D |
| 3.470 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.6 | 65 | 0.0110 | 0.16 | | Sheet Flow, Range n= 0.130 P2= 4.50" |
| 20.2 | 570 | 0.0045 | 0.47 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 26.8 | 635 | Total | | | |

Subcatchment 1-Pre: Pre Development

Hydrograph



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Type III 24-hr 25yr Rainfall=7.70"

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Page 29

Summary for Subcatchment 2-Post: Post-Basin to Pond

Runoff = 18.21 cfs @ 12.07 hrs, Volume= 1.385 af, Depth= 6.98"

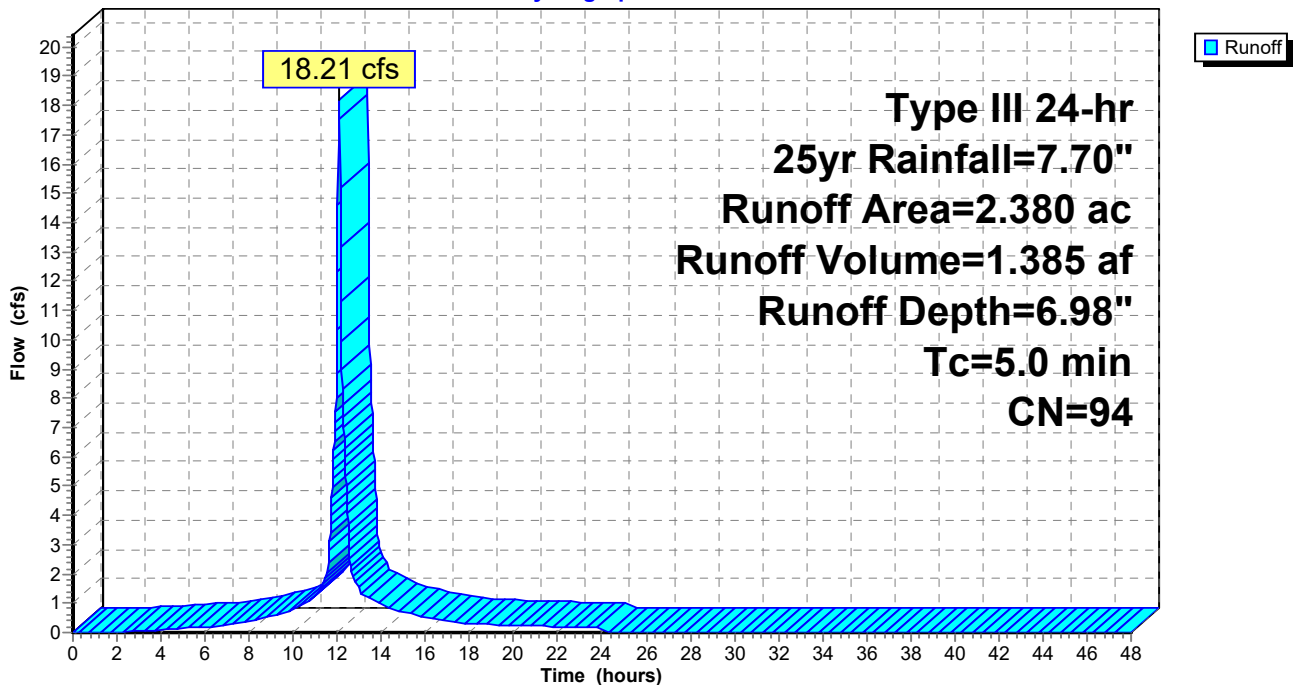
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 25yr Rainfall=7.70"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.570 | 80 | >75% Grass cover, Good, HSG D |
| 1.810 | 98 | Paved parking, HSG D |
| 2.380 | 94 | Weighted Average |
| 0.570 | | 23.95% Pervious Area |
| 1.810 | | 76.05% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment 2-Post: Post-Basin to Pond

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Type III 24-hr 25yr Rainfall=7.70"

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Page 30

Summary for Subcatchment 3-Post: Post By-pass

Runoff = 8.28 cfs @ 12.07 hrs, Volume= 0.624 af, Depth= 6.87"

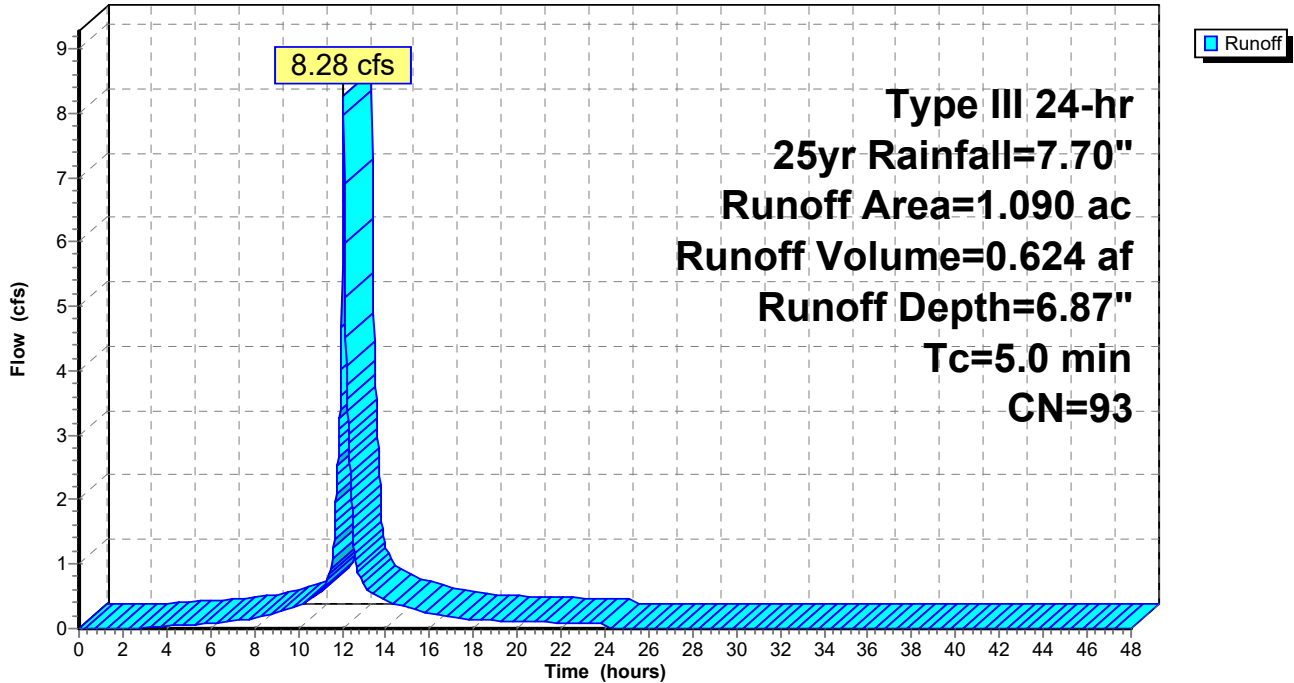
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 25yr Rainfall=7.70"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.290 | 80 | >75% Grass cover, Good, HSG D |
| 0.800 | 98 | Paved parking, HSG D |
| 1.090 | 93 | Weighted Average |
| 0.290 | | 26.61% Pervious Area |
| 0.800 | | 73.39% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment 3-Post: Post By-pass

Hydrograph



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Type III 24-hr 25yr Rainfall=7.70"

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Page 31

Summary for Pond 2-Pond: Pond

Inflow Area = 2.380 ac, 76.05% Impervious, Inflow Depth = 6.98" for 25yr event
 Inflow = 18.21 cfs @ 12.07 hrs, Volume= 1.385 af
 Outflow = 6.27 cfs @ 12.32 hrs, Volume= 1.384 af, Atten= 66%, Lag= 15.1 min
 Primary = 6.27 cfs @ 12.32 hrs, Volume= 1.384 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
 Peak Elev= 259.79' @ 12.32 hrs Surf.Area= 0.192 ac Storage= 0.376 af

Plug-Flow detention time= 39.7 min calculated for 1.384 af (100% of inflow)
 Center-of-Mass det. time= 39.2 min (800.5 - 761.3)

| Volume | Invert | Avail.Storage | Storage Description |
|------------------|-------------------|-----------------------|--|
| #1 | 255.00' | 0.701 af | Custom Stage Data (Prismatic) Listed below (Recalc) |
| Elevation (feet) | Surf.Area (acres) | Inc.Store (acre-feet) | Cum.Store (acre-feet) |
| 255.00 | 0.001 | 0.000 | 0.000 |
| 256.00 | 0.041 | 0.021 | 0.021 |
| 257.00 | 0.062 | 0.052 | 0.073 |
| 258.00 | 0.086 | 0.074 | 0.146 |
| 259.00 | 0.123 | 0.105 | 0.251 |
| 260.00 | 0.210 | 0.166 | 0.418 |
| 261.00 | 0.356 | 0.283 | 0.701 |

| Device | Routing | Invert | Outlet Devices |
|--------|----------|---------|--|
| #1 | Primary | 255.20' | 15.0" Round Culvert L= 25.0' RCP, groove end w/headwall, Ke= 0.200 Inlet / Outlet Invert= 255.20' / 255.10' S= 0.0040 ' S Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| #2 | Device 1 | 255.20' | 6.0" Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 258.00' | 12.0" Vert. Orifice/Grate C= 0.600 |
| #4 | Device 1 | 260.10' | 48.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #5 | Primary | 260.50' | 250.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88 |

Primary OutFlow Max=6.27 cfs @ 12.32 hrs HW=259.79' (Free Discharge)

- 1=Culvert (Passes 6.27 cfs of 13.68 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 1.97 cfs @ 10.03 fps)
- 3=Orifice/Grate (Orifice Controls 4.30 cfs @ 5.47 fps)
- 4=Orifice/Grate (Controls 0.00 cfs)
- 5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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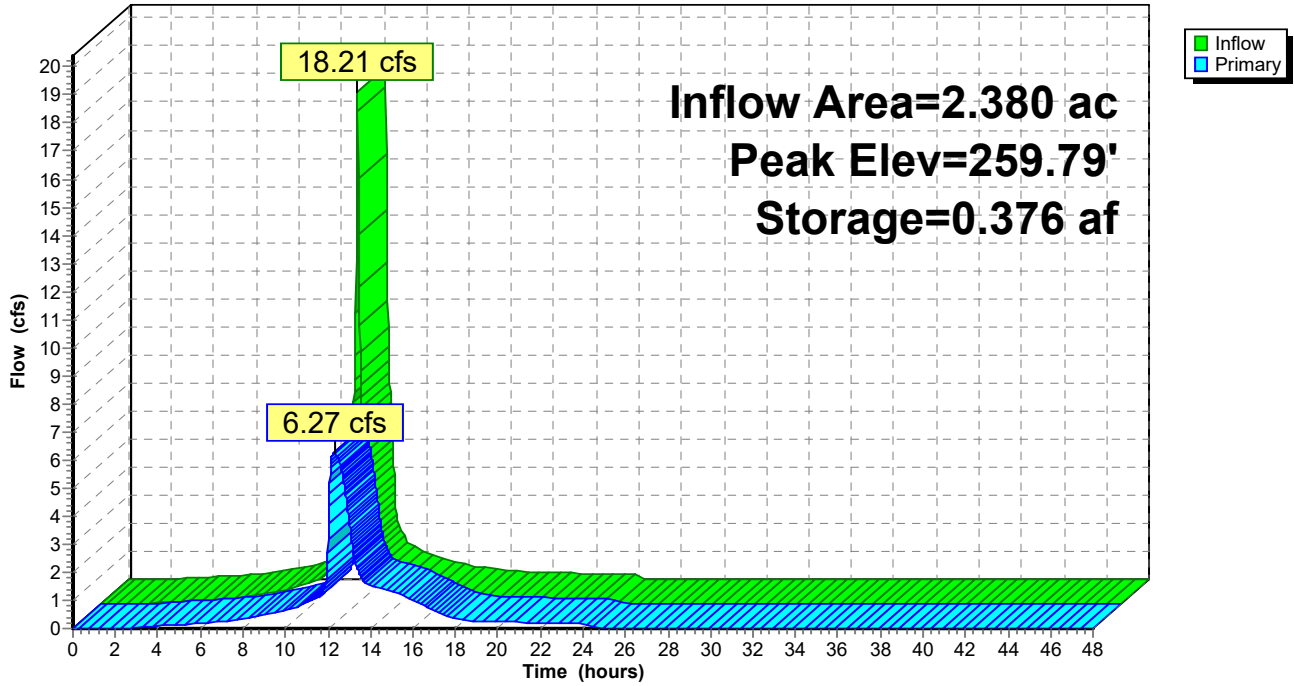
Type III 24-hr 25yr Rainfall=7.70"

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Page 32

Pond 2-Pond: Pond

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Page 33

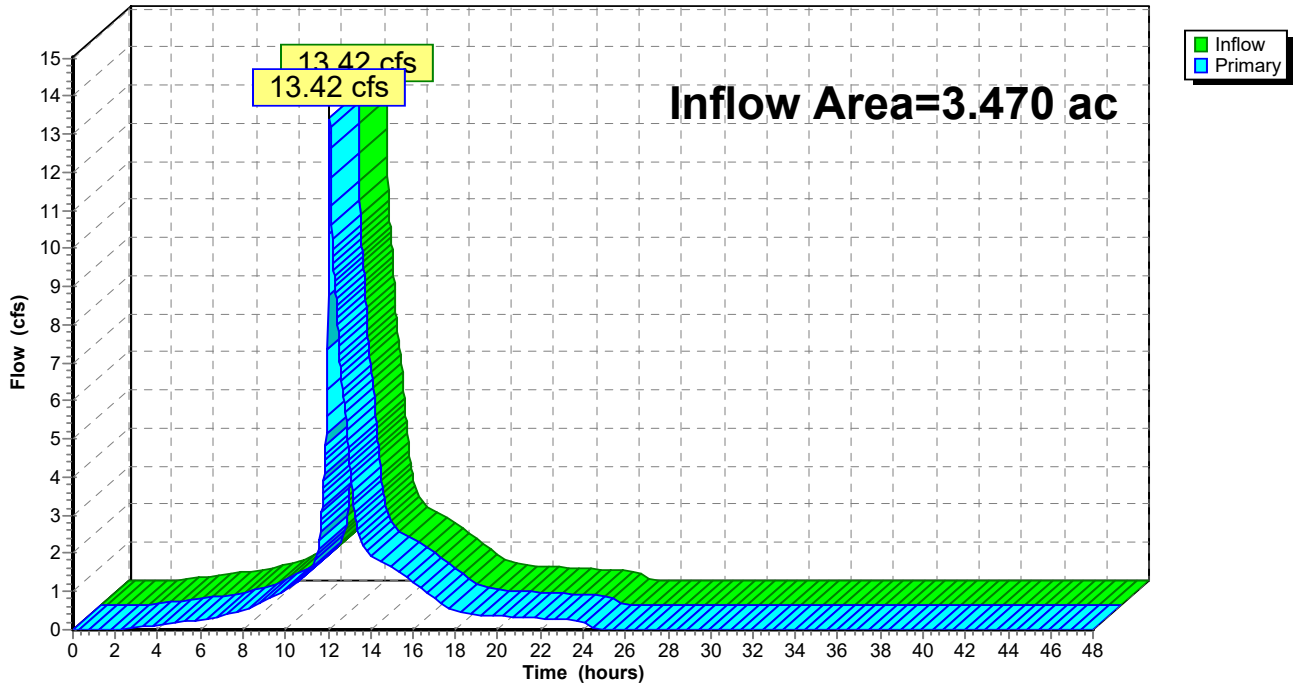
Summary for Link 4L: Post Outfall

Inflow Area = 3.470 ac, 75.22% Impervious, Inflow Depth = 6.94" for 25yr event
Inflow = 13.42 cfs @ 12.08 hrs, Volume= 2.008 af
Primary = 13.42 cfs @ 12.08 hrs, Volume= 2.008 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

Link 4L: Post Outfall

Hydrograph



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Type III 24-hr 50yr Rainfall=8.60"

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Page 34

Time span=0.00-48.00 hrs, dt=0.02 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1-Pre: Pre Development Runoff Area=3.470 ac 0.00% Impervious Runoff Depth=6.67"
Flow Length=635' Tc=26.8 min CN=84 Runoff=15.71 cfs 1.930 af

Subcatchment 2-Post: Post-Basin to Pond Runoff Area=2.380 ac 76.05% Impervious Runoff Depth=7.88"
Tc=5.0 min CN=94 Runoff=20.42 cfs 1.563 af

Subcatchment 3-Post: Post By-pass Runoff Area=1.090 ac 73.39% Impervious Runoff Depth=7.76"
Tc=5.0 min CN=93 Runoff=9.30 cfs 0.705 af

Pond 2-Pond: Pond Peak Elev=260.05' Storage=0.428 af Inflow=20.42 cfs 1.563 af
Outflow=6.74 cfs 1.562 af

Link 4L: Post Outfall Inflow=14.94 cfs 2.266 af
Primary=14.94 cfs 2.266 af

Total Runoff Area = 6.940 ac Runoff Volume = 4.197 af Average Runoff Depth = 7.26"
62.39% Pervious = 4.330 ac 37.61% Impervious = 2.610 ac

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Type III 24-hr 50yr Rainfall=8.60"

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Page 35

Summary for Subcatchment 1-Pre: Pre Development

Runoff = 15.71 cfs @ 12.36 hrs, Volume= 1.930 af, Depth= 6.67"

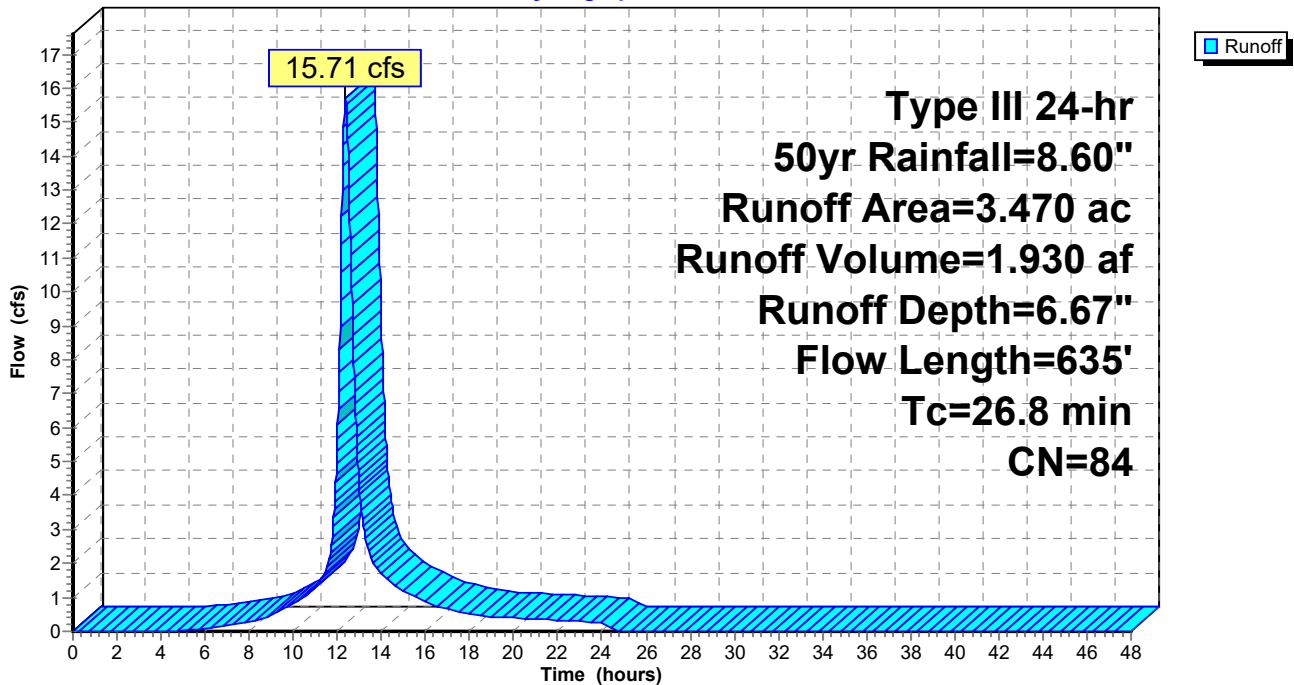
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 50yr Rainfall=8.60"

| Area (ac) | CN | Description |
|-----------|----|--------------------------------------|
| 3.470 | 84 | Pasture/grassland/range, Fair, HSG D |
| 3.470 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.6 | 65 | 0.0110 | 0.16 | | Sheet Flow, Range n= 0.130 P2= 4.50" |
| 20.2 | 570 | 0.0045 | 0.47 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 26.8 | 635 | Total | | | |

Subcatchment 1-Pre: Pre Development

Hydrograph



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Type III 24-hr 50yr Rainfall=8.60"

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Page 36

Summary for Subcatchment 2-Post: Post-Basin to Pond

Runoff = 20.42 cfs @ 12.07 hrs, Volume= 1.563 af, Depth= 7.88"

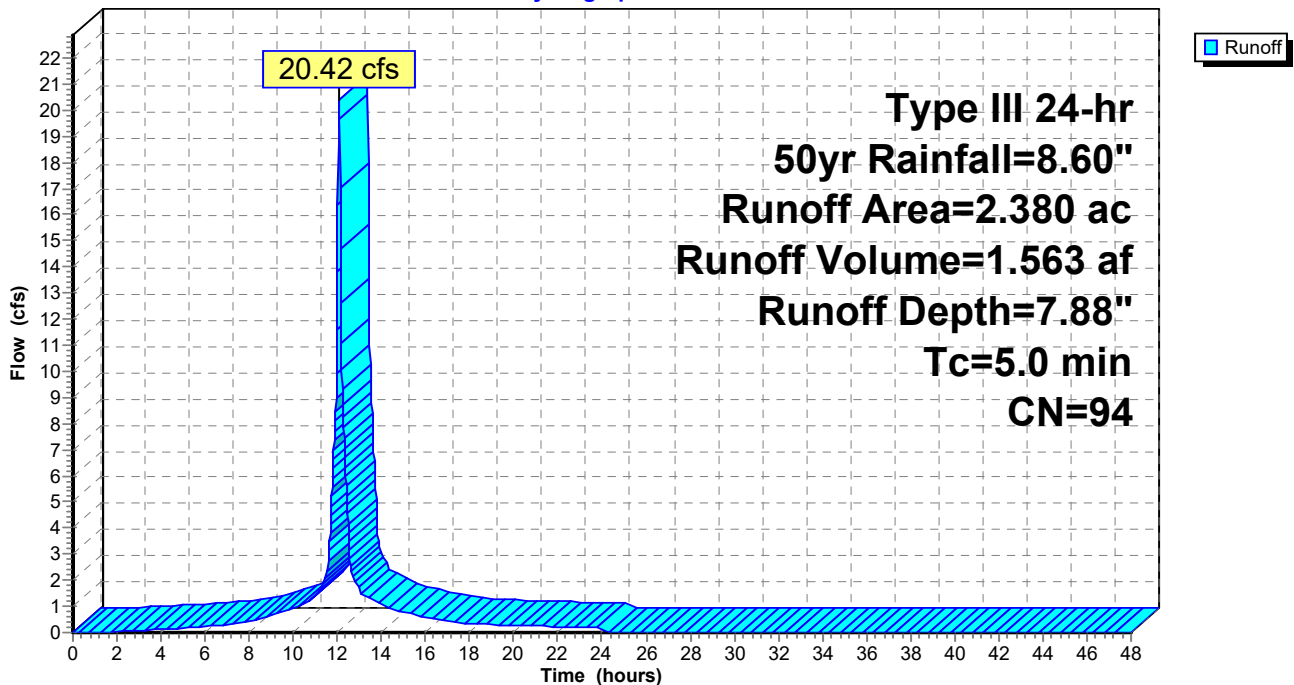
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 50yr Rainfall=8.60"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.570 | 80 | >75% Grass cover, Good, HSG D |
| 1.810 | 98 | Paved parking, HSG D |
| 2.380 | 94 | Weighted Average |
| 0.570 | | 23.95% Pervious Area |
| 1.810 | | 76.05% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment 2-Post: Post-Basin to Pond

Hydrograph



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Type III 24-hr 50yr Rainfall=8.60"

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Page 37

Summary for Subcatchment 3-Post: Post By-pass

Runoff = 9.30 cfs @ 12.07 hrs, Volume= 0.705 af, Depth= 7.76"

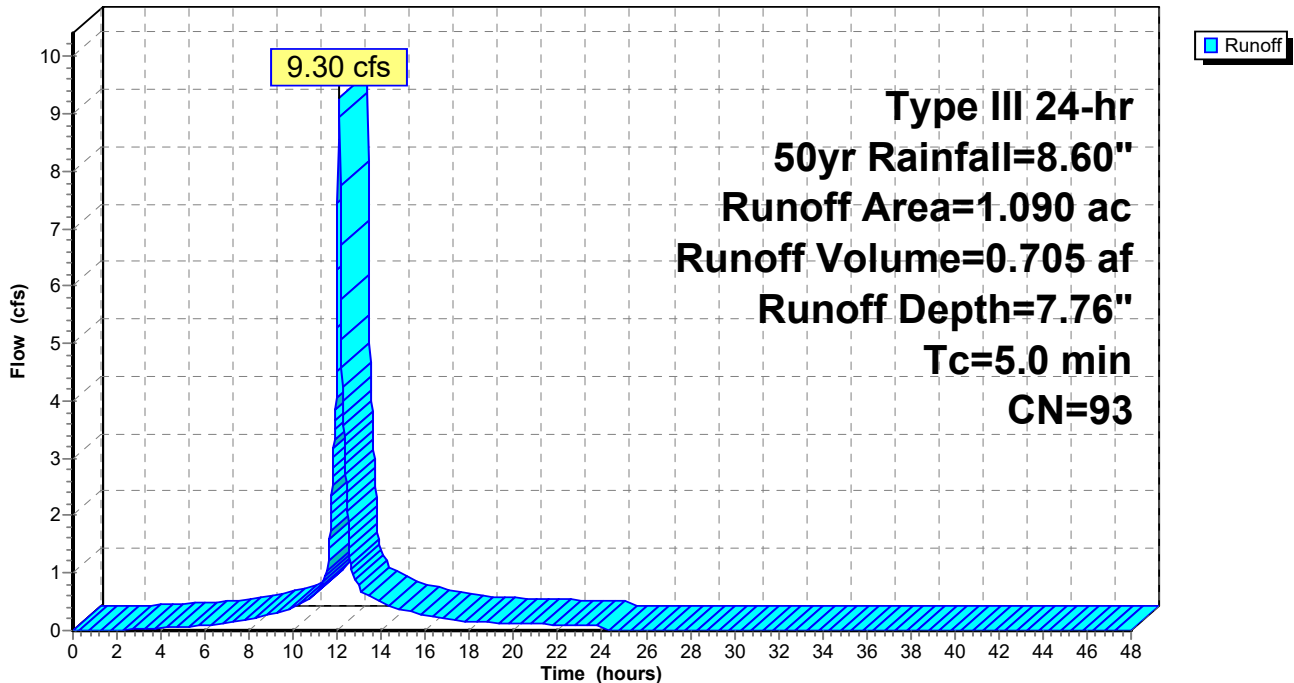
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 50yr Rainfall=8.60"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.290 | 80 | >75% Grass cover, Good, HSG D |
| 0.800 | 98 | Paved parking, HSG D |
| 1.090 | 93 | Weighted Average |
| 0.290 | | 26.61% Pervious Area |
| 0.800 | | 73.39% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment 3-Post: Post By-pass

Hydrograph



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Type III 24-hr 50yr Rainfall=8.60"

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Page 38

Summary for Pond 2-Pond: Pond

Inflow Area = 2.380 ac, 76.05% Impervious, Inflow Depth = 7.88" for 50yr event
 Inflow = 20.42 cfs @ 12.07 hrs, Volume= 1.563 af
 Outflow = 6.74 cfs @ 12.34 hrs, Volume= 1.562 af, Atten= 67%, Lag= 16.0 min
 Primary = 6.74 cfs @ 12.34 hrs, Volume= 1.562 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
 Peak Elev= 260.05' @ 12.34 hrs Surf.Area= 0.217 ac Storage= 0.428 af

Plug-Flow detention time= 40.7 min calculated for 1.562 af (100% of inflow)
 Center-of-Mass det. time= 40.0 min (798.8 - 758.8)

| Volume | Invert | Avail.Storage | Storage Description |
|------------------|-------------------|-----------------------|--|
| #1 | 255.00' | 0.701 af | Custom Stage Data (Prismatic) Listed below (Recalc) |
| Elevation (feet) | Surf.Area (acres) | Inc.Store (acre-feet) | Cum.Store (acre-feet) |
| 255.00 | 0.001 | 0.000 | 0.000 |
| 256.00 | 0.041 | 0.021 | 0.021 |
| 257.00 | 0.062 | 0.052 | 0.073 |
| 258.00 | 0.086 | 0.074 | 0.146 |
| 259.00 | 0.123 | 0.105 | 0.251 |
| 260.00 | 0.210 | 0.166 | 0.418 |
| 261.00 | 0.356 | 0.283 | 0.701 |

| Device | Routing | Invert | Outlet Devices |
|--------|----------|---------|--|
| #1 | Primary | 255.20' | 15.0" Round Culvert L= 25.0' RCP, groove end w/headwall, Ke= 0.200 Inlet / Outlet Invert= 255.20' / 255.10' S= 0.0040 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| #2 | Device 1 | 255.20' | 6.0" Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 258.00' | 12.0" Vert. Orifice/Grate C= 0.600 |
| #4 | Device 1 | 260.10' | 48.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #5 | Primary | 260.50' | 250.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88 |

Primary OutFlow Max=6.74 cfs @ 12.34 hrs HW=260.05' (Free Discharge)

- 1=Culvert (Passes 6.74 cfs of 14.19 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 2.03 cfs @ 10.33 fps)
- 3=Orifice/Grate (Orifice Controls 4.71 cfs @ 6.00 fps)
- 4=Orifice/Grate (Controls 0.00 cfs)
- 5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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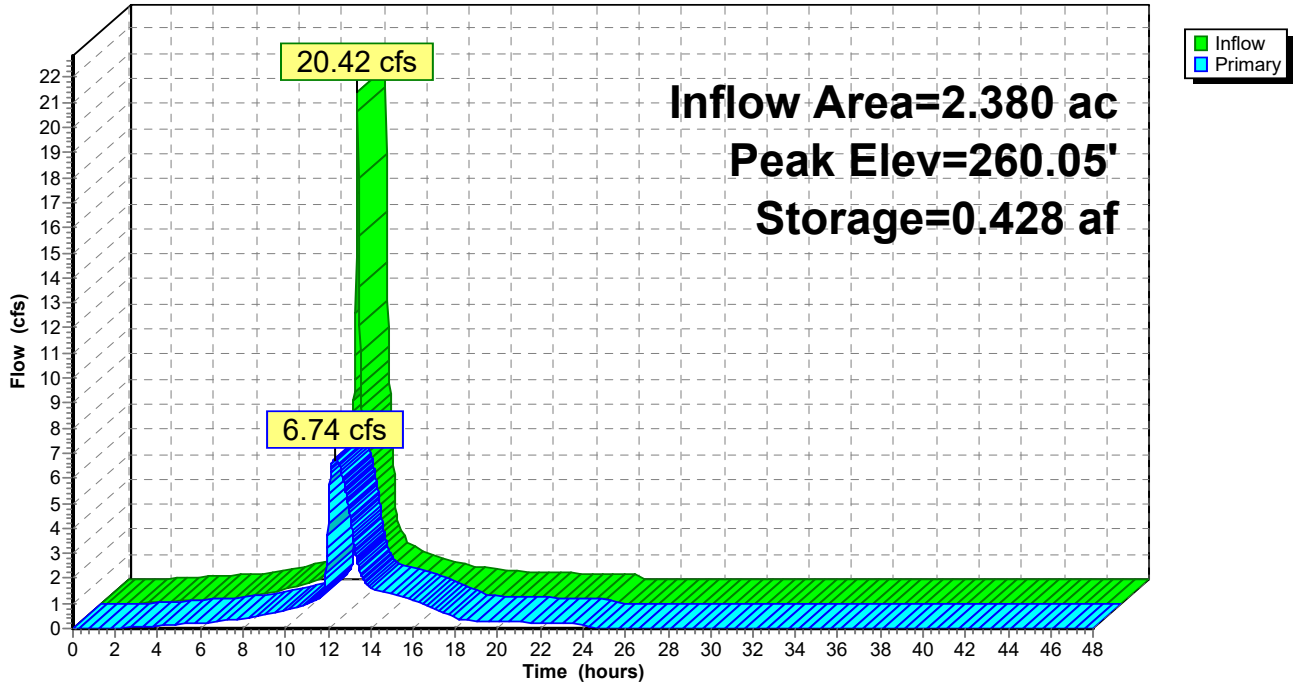
Type III 24-hr 50yr Rainfall=8.60"

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Page 39

Pond 2-Pond: Pond

Hydrograph



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Type III 24-hr 50yr Rainfall=8.60"

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Page 40

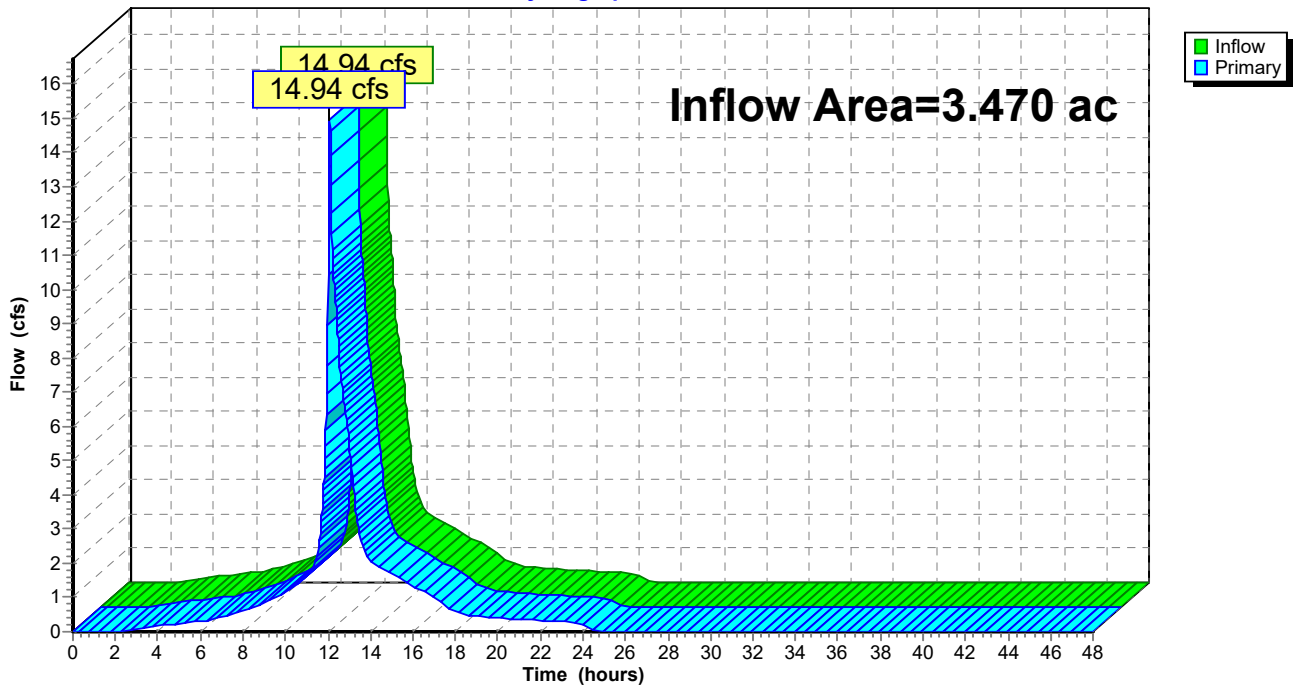
Summary for Link 4L: Post Outfall

Inflow Area = 3.470 ac, 75.22% Impervious, Inflow Depth = 7.84" for 50yr event
Inflow = 14.94 cfs @ 12.08 hrs, Volume= 2.266 af
Primary = 14.94 cfs @ 12.08 hrs, Volume= 2.266 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

Link 4L: Post Outfall

Hydrograph



Bolanos STM

Type III 24-hr 100yr Rainfall=9.40"

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Page 41

Time span=0.00-48.00 hrs, dt=0.02 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1-Pre: Pre Development Runoff Area=3.470 ac 0.00% Impervious Runoff Depth=7.45"
Flow Length=635' Tc=26.8 min CN=84 Runoff=17.44 cfs 2.153 af

Subcatchment 2-Post: Post-Basin to Pond Runoff Area=2.380 ac 76.05% Impervious Runoff Depth=8.68"
Tc=5.0 min CN=94 Runoff=22.38 cfs 1.721 af

Subcatchment 3-Post: Post By-pass Runoff Area=1.090 ac 73.39% Impervious Runoff Depth=8.55"
Tc=5.0 min CN=93 Runoff=10.20 cfs 0.777 af

Pond 2-Pond: Pond Peak Elev=260.20' Storage=0.462 af Inflow=22.38 cfs 1.721 af
Outflow=8.66 cfs 1.720 af

Link 4L: Post Outfall Inflow=16.22 cfs 2.497 af
Primary=16.22 cfs 2.497 af

Total Runoff Area = 6.940 ac Runoff Volume = 4.651 af Average Runoff Depth = 8.04"
62.39% Pervious = 4.330 ac 37.61% Impervious = 2.610 ac

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Type III 24-hr 100yr Rainfall=9.40"

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Page 42

Summary for Subcatchment 1-Pre: Pre Development

Runoff = 17.44 cfs @ 12.36 hrs, Volume= 2.153 af, Depth= 7.45"

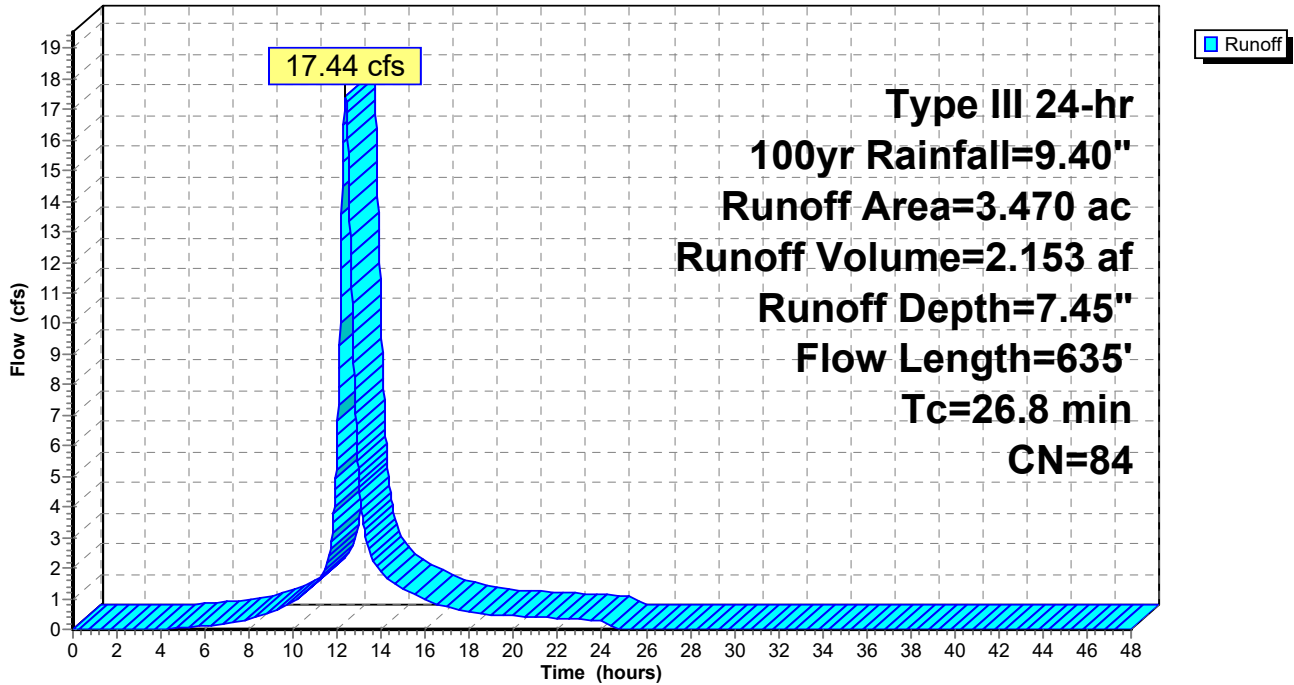
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 100yr Rainfall=9.40"

| Area (ac) | CN | Description |
|-----------|----|--------------------------------------|
| 3.470 | 84 | Pasture/grassland/range, Fair, HSG D |
| 3.470 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---|
| 6.6 | 65 | 0.0110 | 0.16 | | Sheet Flow, Range n= 0.130 P2= 4.50" |
| 20.2 | 570 | 0.0045 | 0.47 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 26.8 | 635 | Total | | | |

Subcatchment 1-Pre: Pre Development

Hydrograph



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Type III 24-hr 100yr Rainfall=9.40"

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Page 43

Summary for Subcatchment 2-Post: Post-Basin to Pond

Runoff = 22.38 cfs @ 12.07 hrs, Volume= 1.721 af, Depth= 8.68"

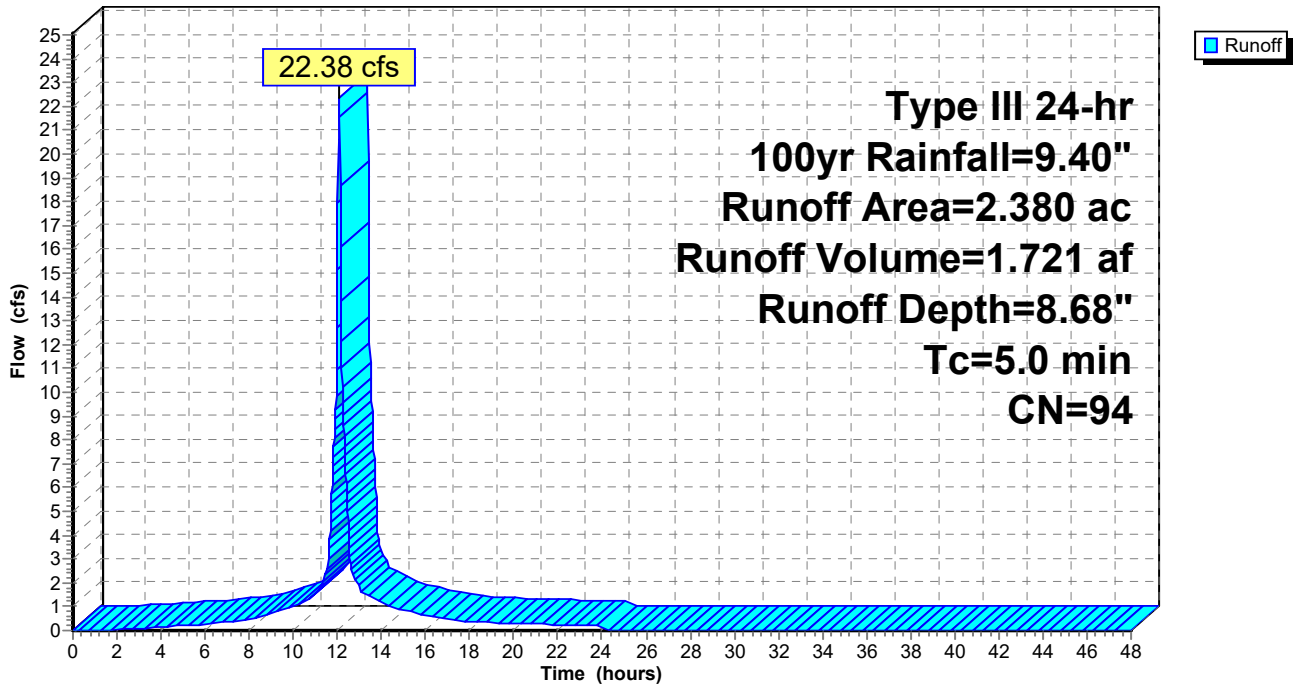
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 100yr Rainfall=9.40"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.570 | 80 | >75% Grass cover, Good, HSG D |
| 1.810 | 98 | Paved parking, HSG D |
| 2.380 | 94 | Weighted Average |
| 0.570 | | 23.95% Pervious Area |
| 1.810 | | 76.05% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment 2-Post: Post-Basin to Pond

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Type III 24-hr 100yr Rainfall=9.40"

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Page 44

Summary for Subcatchment 3-Post: Post By-pass

Runoff = 10.20 cfs @ 12.07 hrs, Volume= 0.777 af, Depth= 8.55"

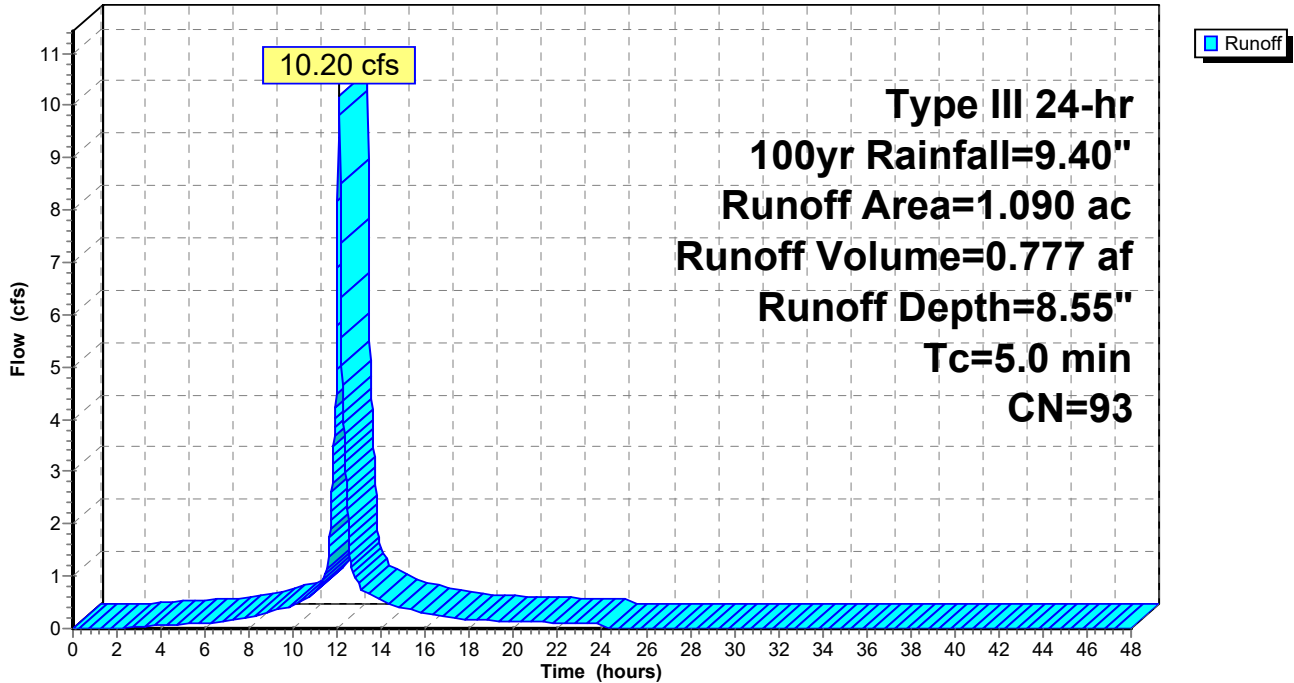
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
Type III 24-hr 100yr Rainfall=9.40"

| Area (ac) | CN | Description |
|-----------|----|-------------------------------|
| 0.290 | 80 | >75% Grass cover, Good, HSG D |
| 0.800 | 98 | Paved parking, HSG D |
| 1.090 | 93 | Weighted Average |
| 0.290 | | 26.61% Pervious Area |
| 0.800 | | 73.39% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 5.0 | | | | | Direct Entry, |

Subcatchment 3-Post: Post By-pass

Hydrograph



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Type III 24-hr 100yr Rainfall=9.40"

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Page 45

Summary for Pond 2-Pond: Pond

Inflow Area = 2.380 ac, 76.05% Impervious, Inflow Depth = 8.68" for 100yr event
 Inflow = 22.38 cfs @ 12.07 hrs, Volume= 1.721 af
 Outflow = 8.66 cfs @ 12.28 hrs, Volume= 1.720 af, Atten= 61%, Lag= 12.4 min
 Primary = 8.66 cfs @ 12.28 hrs, Volume= 1.720 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs
 Peak Elev= 260.20' @ 12.28 hrs Surf.Area= 0.239 ac Storage= 0.462 af

Plug-Flow detention time= 40.4 min calculated for 1.719 af (100% of inflow)
 Center-of-Mass det. time= 40.0 min (796.8 - 756.8)

| Volume | Invert | Avail.Storage | Storage Description |
|---------------------|----------------------|--------------------------|--|
| #1 | 255.00' | 0.701 af | Custom Stage Data (Prismatic) Listed below (Recalc) |
| Elevation (feet) | Surf.Area (acres) | Inc.Store (acre-feet) | Cum.Store (acre-feet) |
| 255.00 | 0.001 | 0.000 | 0.000 |
| 256.00 | 0.041 | 0.021 | 0.021 |
| 257.00 | 0.062 | 0.052 | 0.073 |
| 258.00 | 0.086 | 0.074 | 0.146 |
| 259.00 | 0.123 | 0.105 | 0.251 |
| 260.00 | 0.210 | 0.166 | 0.418 |
| 261.00 | 0.356 | 0.283 | 0.701 |

| Device | Routing | Invert | Outlet Devices |
|--------|----------|---------|--|
| #1 | Primary | 255.20' | 15.0" Round Culvert L= 25.0' RCP, groove end w/headwall, Ke= 0.200 Inlet / Outlet Invert= 255.20' / 255.10' S= 0.0040 ' S Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| #2 | Device 1 | 255.20' | 6.0" Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 258.00' | 12.0" Vert. Orifice/Grate C= 0.600 |
| #4 | Device 1 | 260.10' | 48.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| #5 | Primary | 260.50' | 250.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88 |

Primary OutFlow Max=8.60 cfs @ 12.28 hrs HW=260.20' (Free Discharge)

- 1=Culvert (Passes 8.60 cfs of 14.47 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 2.06 cfs @ 10.49 fps)
- 3=Orifice/Grate (Orifice Controls 4.93 cfs @ 6.27 fps)
- 4=Orifice/Grate (Weir Controls 1.61 cfs @ 1.02 fps)
- 5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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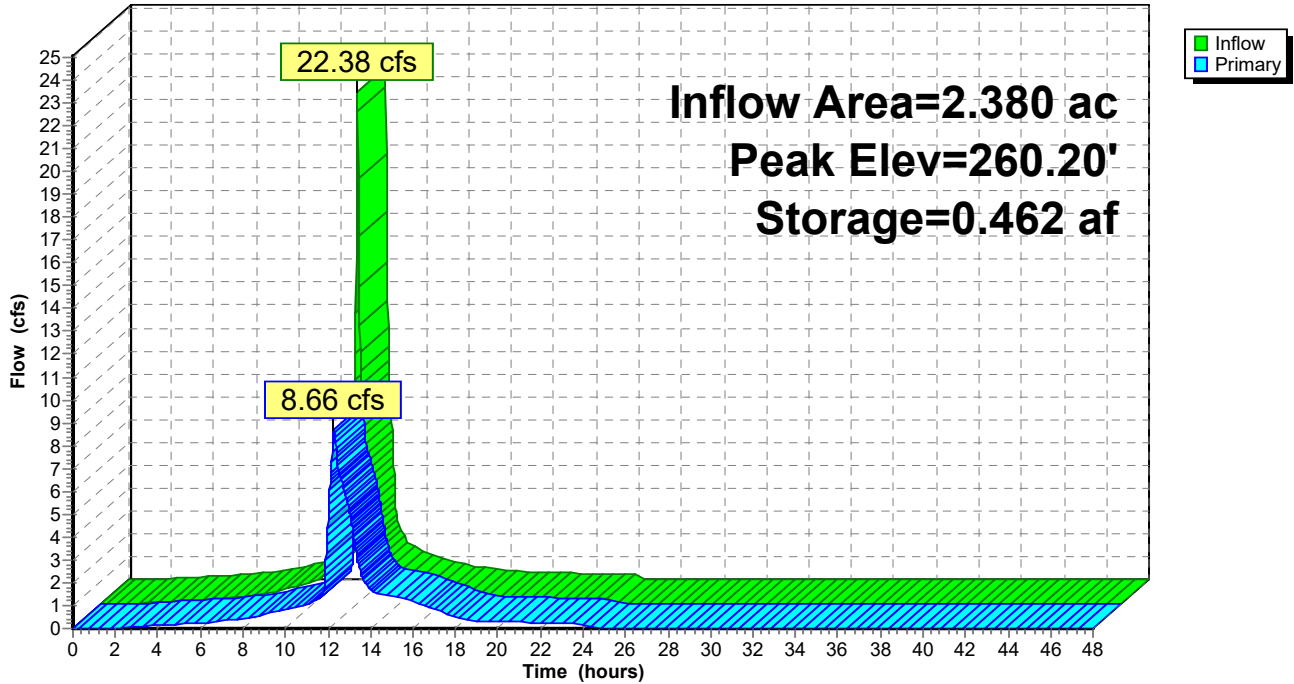
Type III 24-hr 100yr Rainfall=9.40"

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Page 46

Pond 2-Pond: Pond

Hydrograph



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Type III 24-hr 100yr Rainfall=9.40"

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Page 47

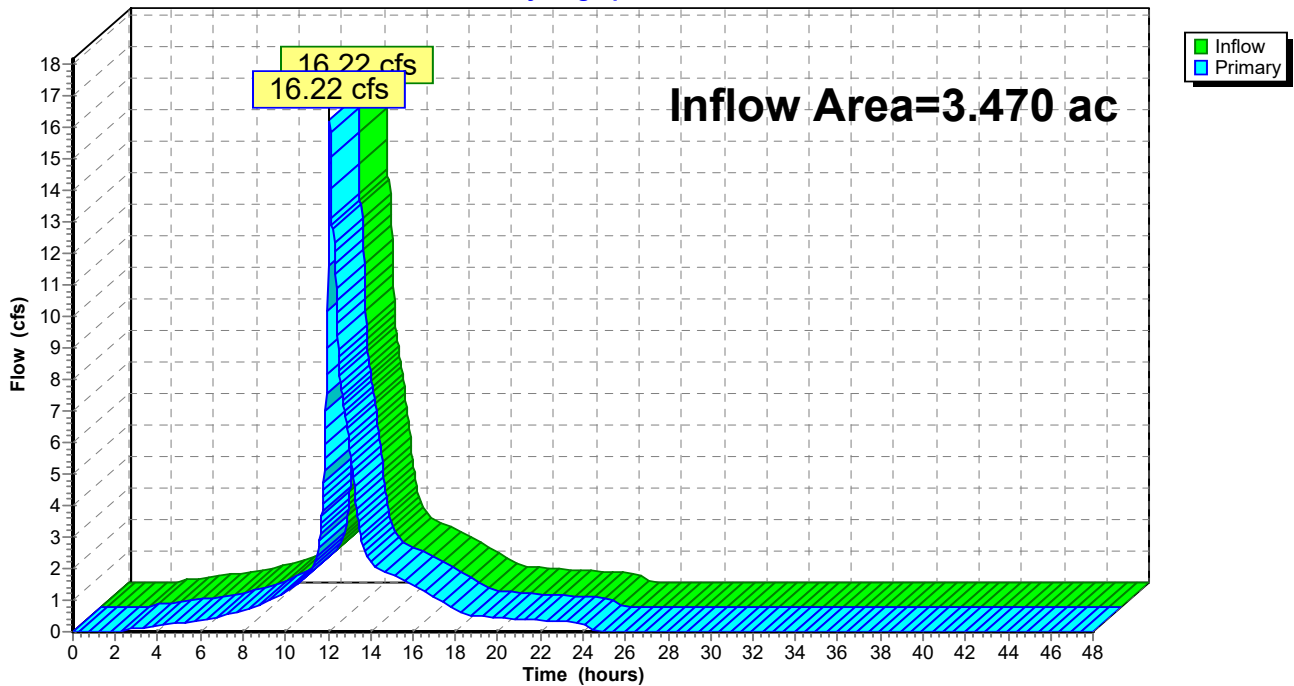
Summary for Link 4L: Post Outfall

Inflow Area = 3.470 ac, 75.22% Impervious, Inflow Depth = 8.63" for 100yr event
Inflow = 16.22 cfs @ 12.08 hrs, Volume= 2.497 af
Primary = 16.22 cfs @ 12.08 hrs, Volume= 2.497 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.02 hrs

Link 4L: Post Outfall

Hydrograph



City of Gluckstadt

Application for Site Plan Review

Subject Property Address: Church Rd,
Parcel #: 082E-15-001 / 04.02

Owner: TICO Investments
Address: Danny Bolanos

Applicant: David Wealdridge
Address: 464 Church Rd
Suite 700 Madison

Phone #: 601-559-8161
E-Mail: dbola14@gmail.com

Phone #: 601-209-8665
E-Mail: wealdridgearchitecture@yahoo.com

Current Zoning District: C-2
Acreage of Property (If applicable): 3.47 ac
Use sought of Property: Retail / Recreation

Requirements of Applicant:

- 1. Copy of written legal description.
- 2. Site Plan as required in Section 807-810
- 3. Color Rendering & Elevations at time of submittal

Requirements for Site Plan Submittal (Section 808, Zoning Ordinance)

Nine (9) copies of the site plan shall be prepared and submitted to the Zoning Administrator. Digital copies are acceptable. Three (3) hard copies are required.

Site Plan Specifications (Section 809, Zoning Ordinance)

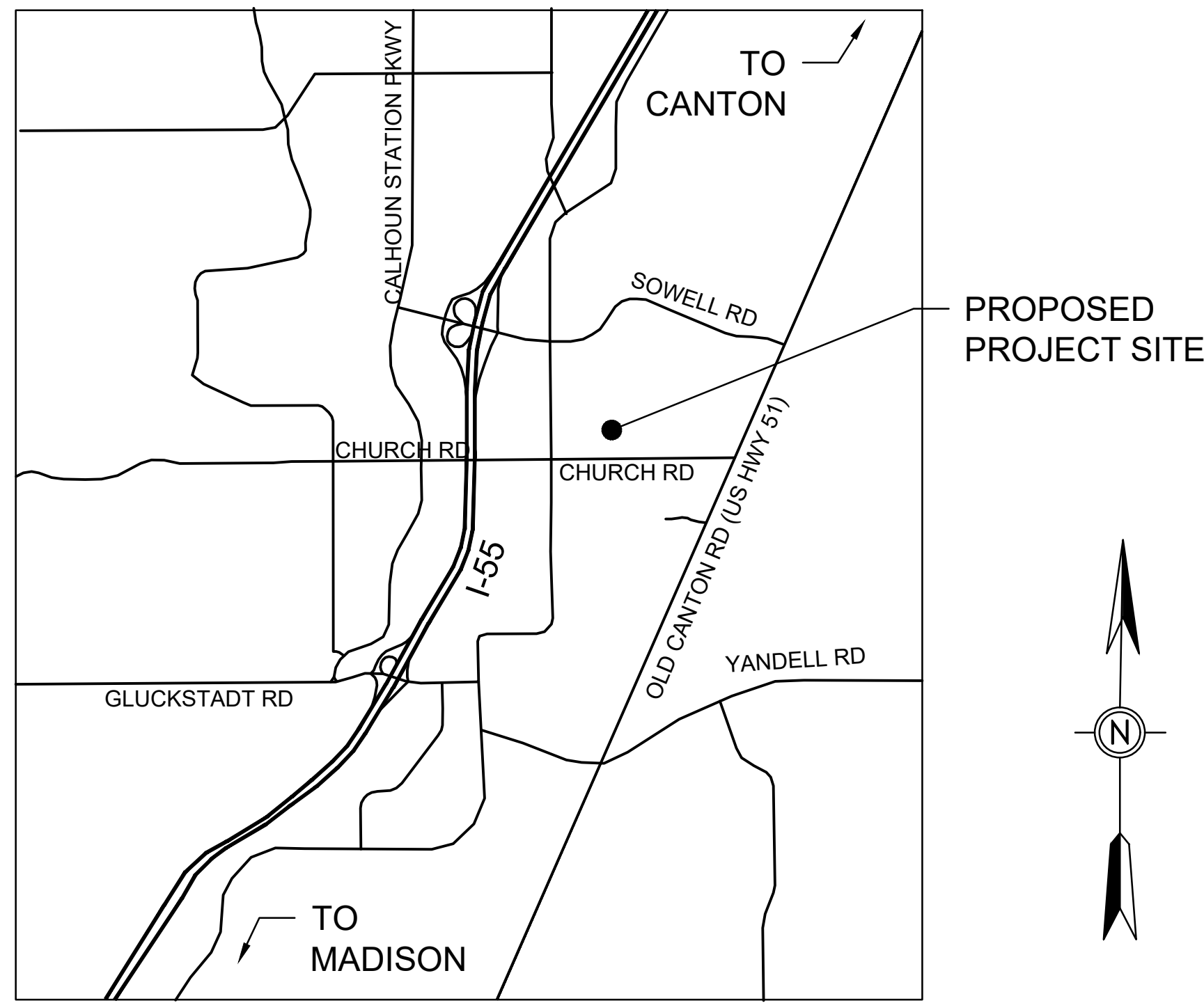
- A. Lot Lines (property lines)
- B. Zoning of the adjacent lots
- C. The names of owners of adjacent lots
- D. Rights of way existing and proposed streets, including streets shown on the adopted Throughfares plan
- E. Access ways, curb cuts, driveways, and parking, including number of parking spaces to be provided
- F. All existing and proposed easements
- G. All existing and proposed water and sewer lines. Also, the location of all existing and proposed fire hydrants.
- H. Drainage plan showing existing and proposed storm drainage facilities. The drainage plan shall indicate adjacent off site drainage courses and projected storm water flow rates from off-site and on-site sources.
- I. Contours at vertical intervals of five (5) feet or less.
- J. Floodplain designation, according to FEMA Maps.
- K. Landscaped areas and planting screens.

MAGNOLIA COMMONS

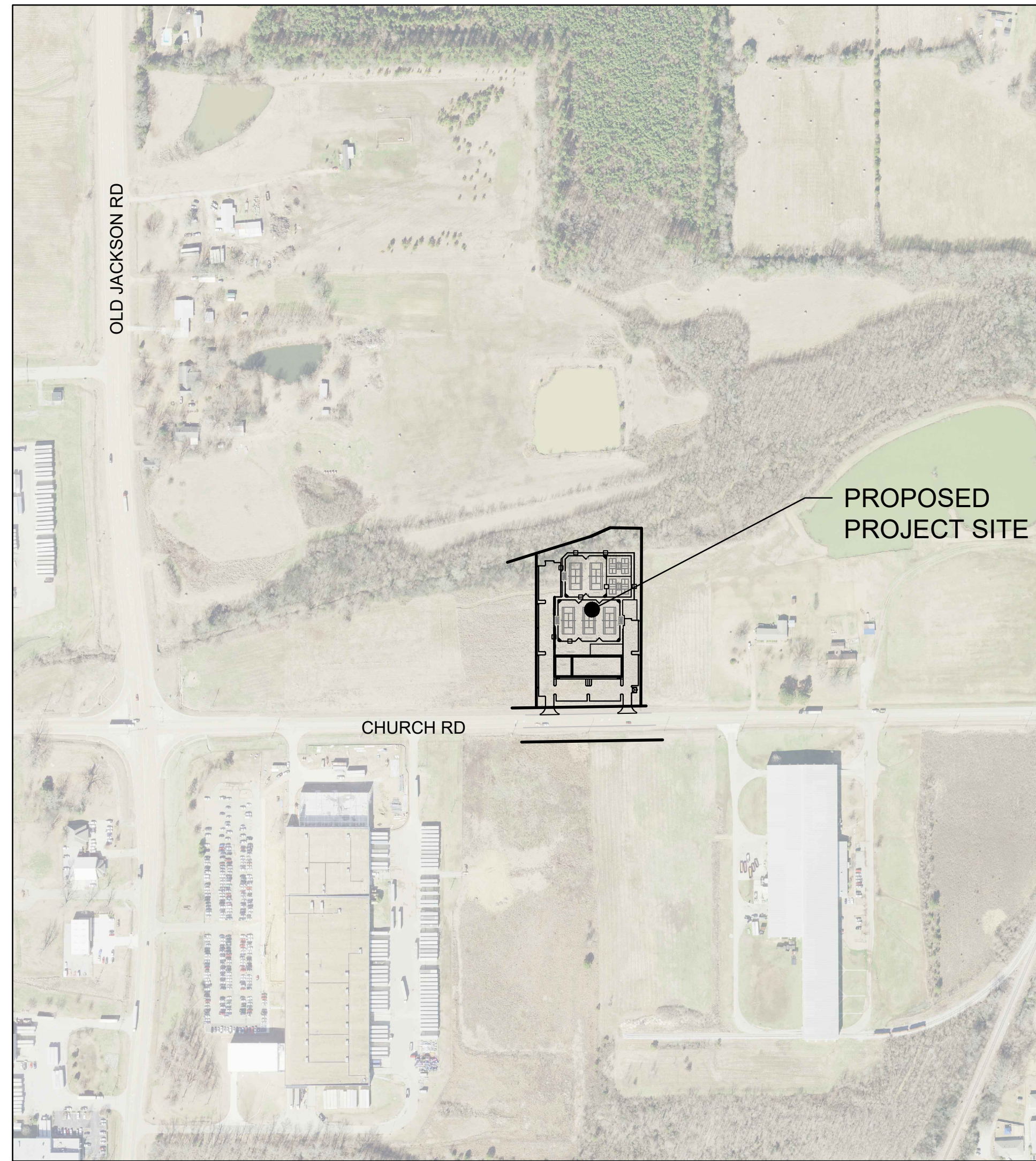
A PROPOSED COMMERCIAL SITE DEVELOPMENT

CHURCH ROAD

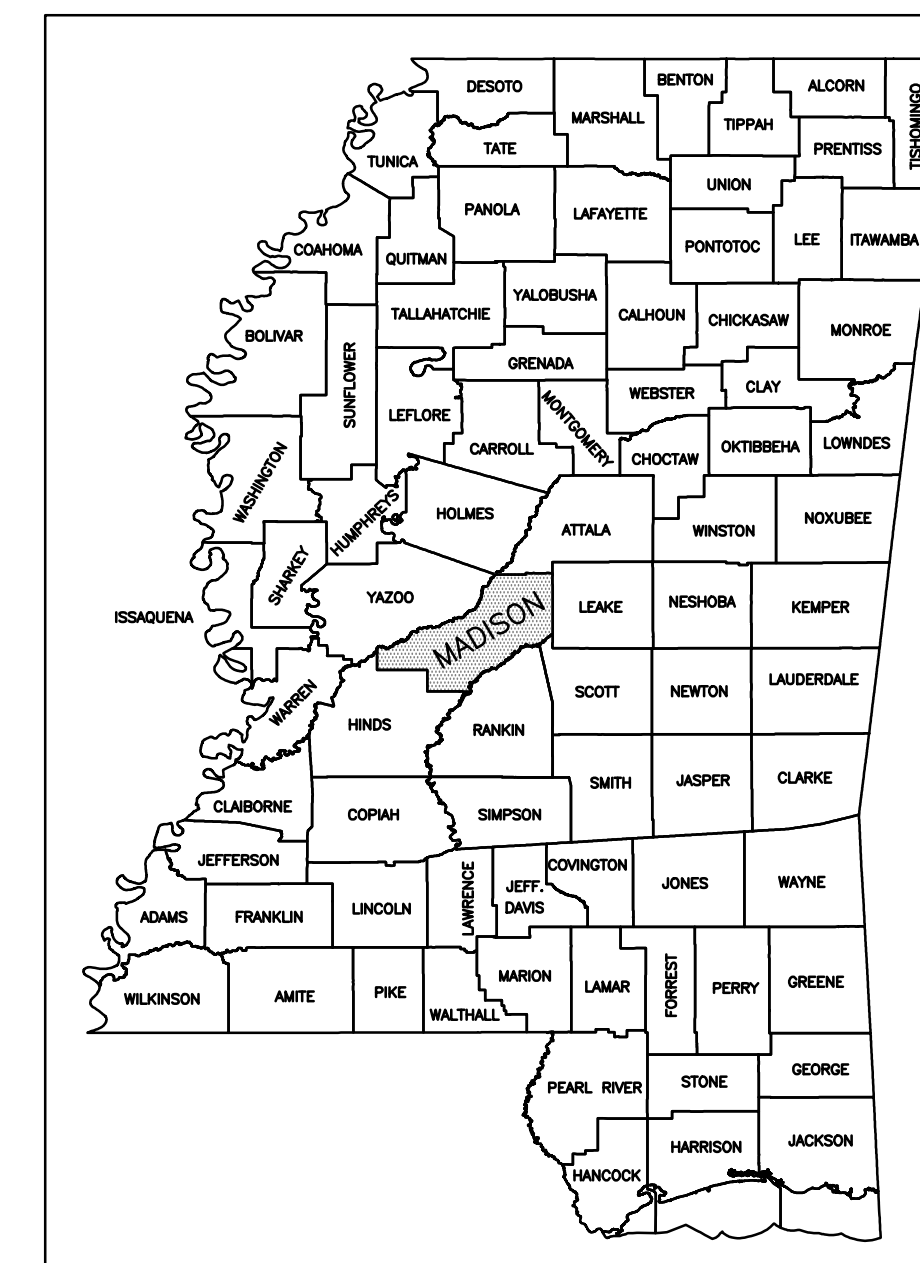
GLUCKSTADT, MS 39110



CITY LOCATION
SCALE: NONE



STREET LOCATION
SCALE: 1"=300'



STATE LOCATION
(MADISON COUNTY)

- TABLE OF CONTENTS**
1. COVER
 2. EXISTING CONDITIONS & DEMO PLAN
 3. SITE PLAN
 4. UTILITY PLAN
 5. GRADING PLAN
 6. EROSION CONTROL PLAN (SWPPP)
 7. SITE DETAILS
 8. UTILITY DETAILS
 9. PUMP STATION DETAILS

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4780 I-55 NORTH, SUITE 100-4
JACKSON, MS 39211
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| No. | Description | Date |
|-----|---------------------------------|------------|
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

OWNER:
DANNY BOLANOS
115 HOURS LANE,
MADISON MS 39110

PROJECT TITLE: MAGNOLIA COMMONS
SHEET TITLE: COVER
SITE DEVELOPMENT

JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

SHEET NUMBER:
1

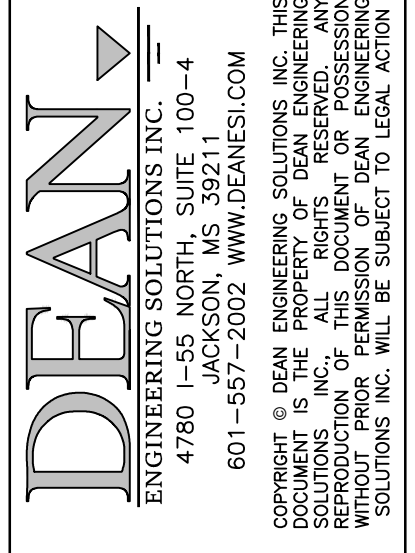


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SURVEY NOTES:

- EXISTING SURVEY INFORMATION SHOWN THIS SHEET PROVIDED BY: RICHARD T. TOLBERT. PLS. 100 OLD ORCHARD RD, MADISON, MS 39110. DATE OF SURVEY: 2022-05-07
- LOCATION OF UNDERGROUND UTILITIES & STRUCTURES OF ANY TYPE MAY NOT BE COMPLETE OR EXACT. FOR MORE POSITIVE LOCATIONS CONTACT MISSISSIPPI ONE CALL SYSTEM INC. (TELEPHONE NO. 811) OR OTHER LOCAL AUTHORITIES TO LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL VERIFY THE DEPTH AND LOCATION OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING CONSTRUCTION. ALL NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW AND APPROVAL BY ENGINEER PRIOR TO CONSTRUCTION. THIS PLAN IS DIAGRAMMATIC AND REPRESENTS THE APPROXIMATE LOCATION OF UTILITIES UNLESS SPECIFICALLY DIMENSIONED.



| No. | Description | Date |
|-----|---------------------------------|------------|
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

DRAWING ISSUED

OWNER:
DANNY BOLANOS
115 HONOURS LANE,
MADISON MS 39110

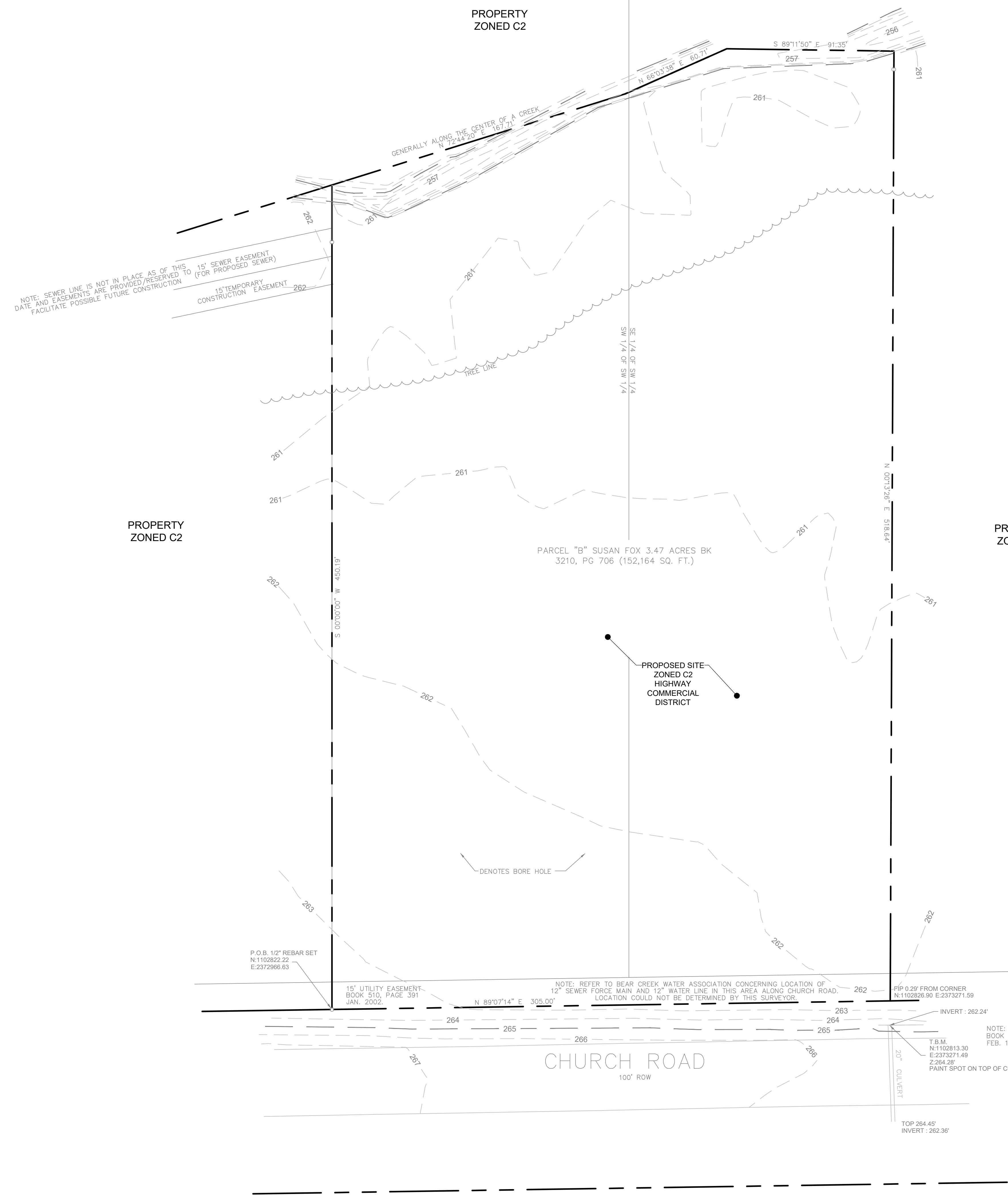
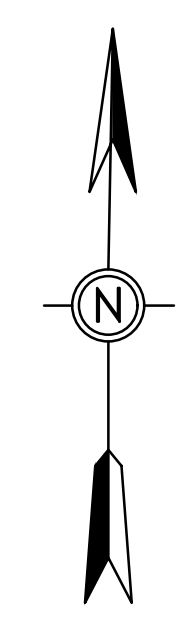
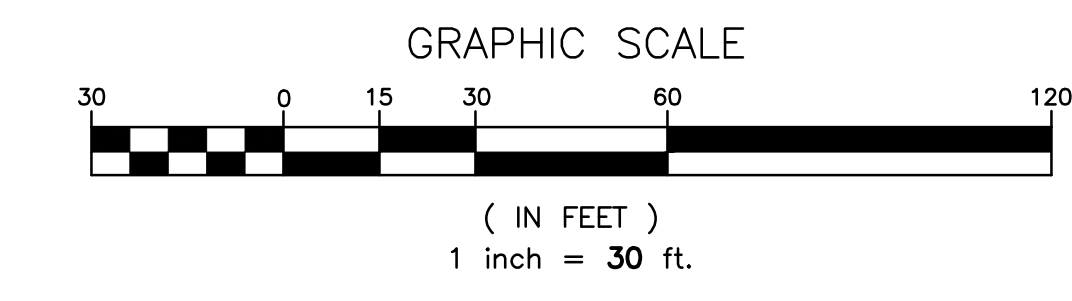
PROJECT TITLE: **MAGNOLIA COMMONS**
SHEET TITLE:
EXISTING CONDITIONS & DEMO PLAN
SITE DEVELOPMENT

JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

SHEET NUMBER:
2

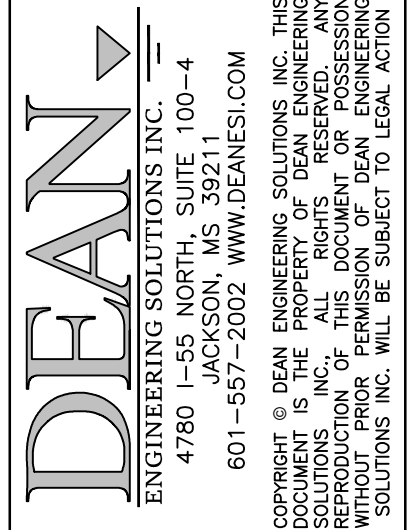
DRAWING SYMBOL LEGEND

| EXISTING | DESCRIPTION |
|----------|---------------------|
| — SS — | SANITARY SEWER LINE |
| — W — | WATER LINE |
| — STM — | STORM LINE |
| — — — — | PROPERTY LINE |
| — 400 — | MAJOR CONTOUR LINE |
| — -401 - | MINOR CONTOUR LINE |



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| No. | Description | Date |
|-----|---------------------------------|------------|
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

OWNER:
DANNY BOLANOS
115 HONOURS LANE,
MADISON MS 39110

PROJECT TITLE: **MAGNOLIA COMMONS**
SHEET TITLE:
SITE PLAN
SITE DEVELOPMENT

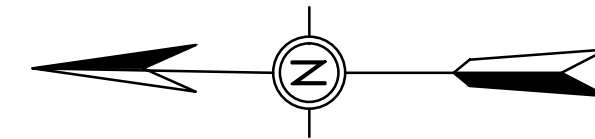
JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

SHEET NUMBER:
3

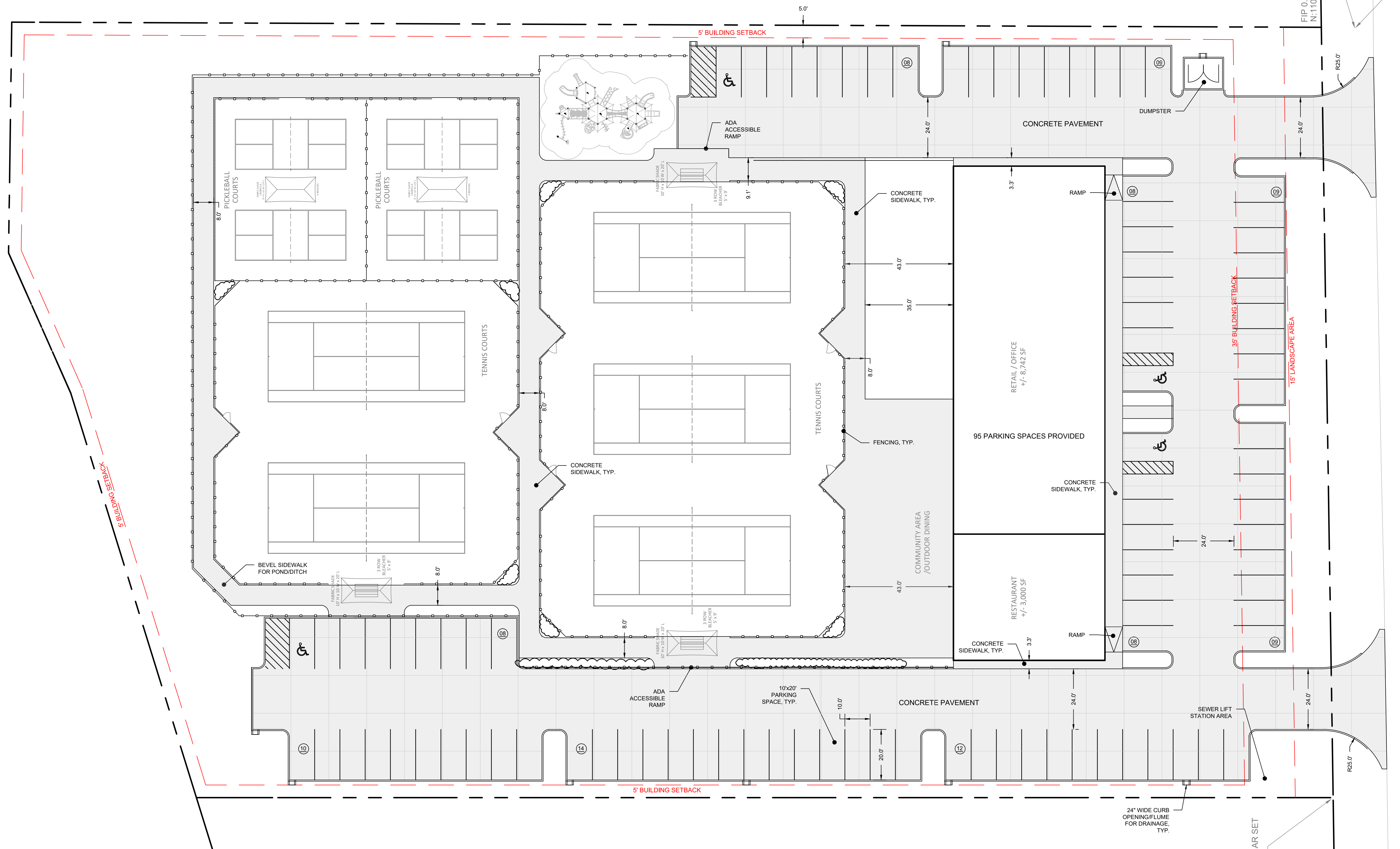
GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.



PROPOSED GROSS LOT COVERAGE OF
BUILDINGS AND STRUCTURES
BUILDING SIZE: 11,742 SF TOTAL (EACH SINGLE STORY)

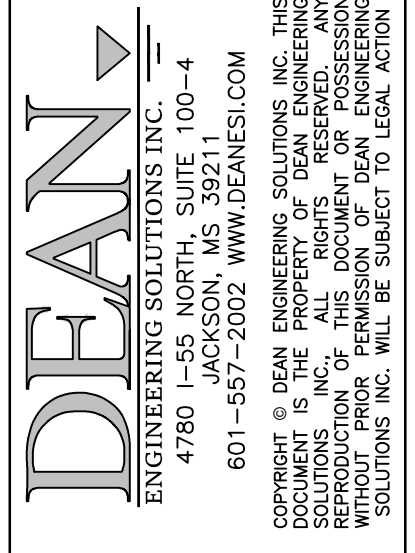


SITE PLAN NOTES

1. ADA HANDICAPPED (HC) PARKING: REFER TO THE ADA HC DETAILS FOR DIMENSIONS AND SPECIFICATIONS ON REGULAR HC AND VAN ACCESSIBLE PARKING REQUIREMENTS. A MIN. OF 2 SPACES SHALL BE RESERVED FOR HC PARKING, AND A MIN. OF ONE SHALL BE VAN ACCESSIBLE. GRADES ACROSS ADA PARKING SHALL NOT EXCEED 2.0% SLOPE IN ANY DIRECTION
2. STRIPING: ALL PARKING SPACE STRIPING SHALL BE 4" WIDE STRIPES, WHITE TRAFFIC PAINT.
3. SIDEWALKS: SHALL BE MIN. 5' WIDE TYPICALLY, EXCEPT WHERE SPECIFIED OTHERWISE AND SHALL BE LIGHT-DUTY CONCRETE PAVEMENT, 4" THICK, MIN. SLOPED AT 2.0% MAX. AWAY FROM BUILDING.
4. DIMENSIONS: ALL DIMENSIONS REFER TO FACE OF CURB UNLESS OTHERWISE NOTED.
5. CONCRETE JOINTS: JOINTS SHALL BE SPACED ON 10FT x 10FT SQUARE GRID PATTERN TYPICAL. JOINTS SHOULD FORM PANELS THAT ARE APPROXIMATELY SQUARE WITH THE LONGEST PANEL DIMENSION NO MORE THAN 1.25 TIMES THE SHORTEST PANEL DIMENSION. JOINTS SHOULD INTERSECT RADIUSES & OTHER STRUCTURES AT A NEAR PERPENDICULAR ANGLE, OR HAVE A ±18° SEGMENT THAT HITS PERPENDICULARLY. CONCRETE JOINT SPACING, REINFORCEMENT AND LAYOUT SHALL BE DESIGNED IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE'S "GUIDE FOR THE DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS" - ACI 309. SEE DETAILS FOR ADDITIONAL PAVING AND JOINT REQUIREMENTS. CONTRACTOR SHALL SUBMIT A SHOP DRAWING FOR REVIEW SHOWING PROPOSED SAW-JOINT PATTERNS, DIMENSIONS, LOCATIONS OF CONSTRUCTION-JOINTS, ISOLATION-JOINTS AND EXPANSION-JOINTS, AND CONCRETE MIX DESIGN PROPERTIES.



Know what's below
Call before you dig



| No. | Description | Date |
|-----|---------------------------------|------------|
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

OWNER:
DANNY BOLANOS
115 HONOURS LANE,
MADISON MS 39110

PROJECT TITLE: **MAGNOLIA COMMONS**
SHEET TITLE:
UTILITY PLAN
SITE DEVELOPMENT

JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

SHEET NUMBER:
4

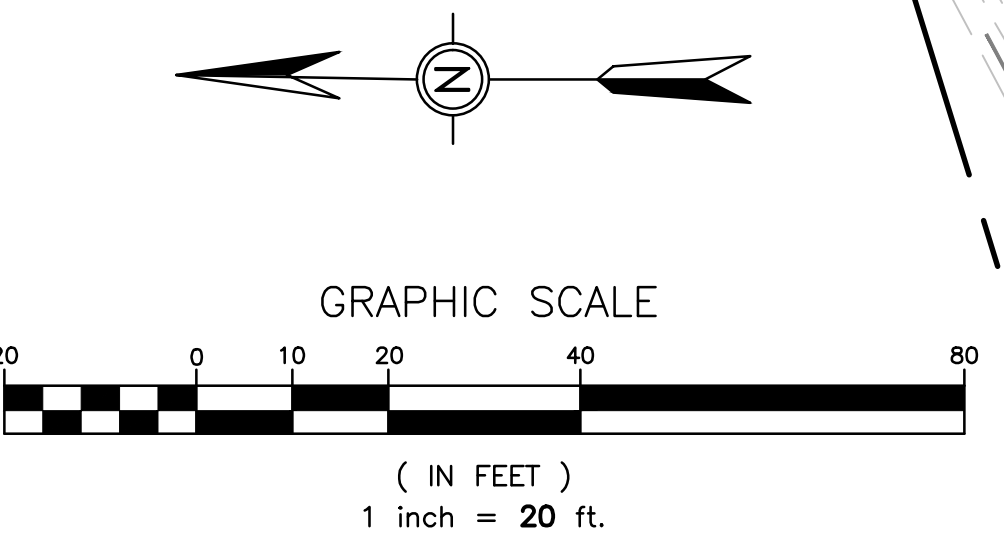
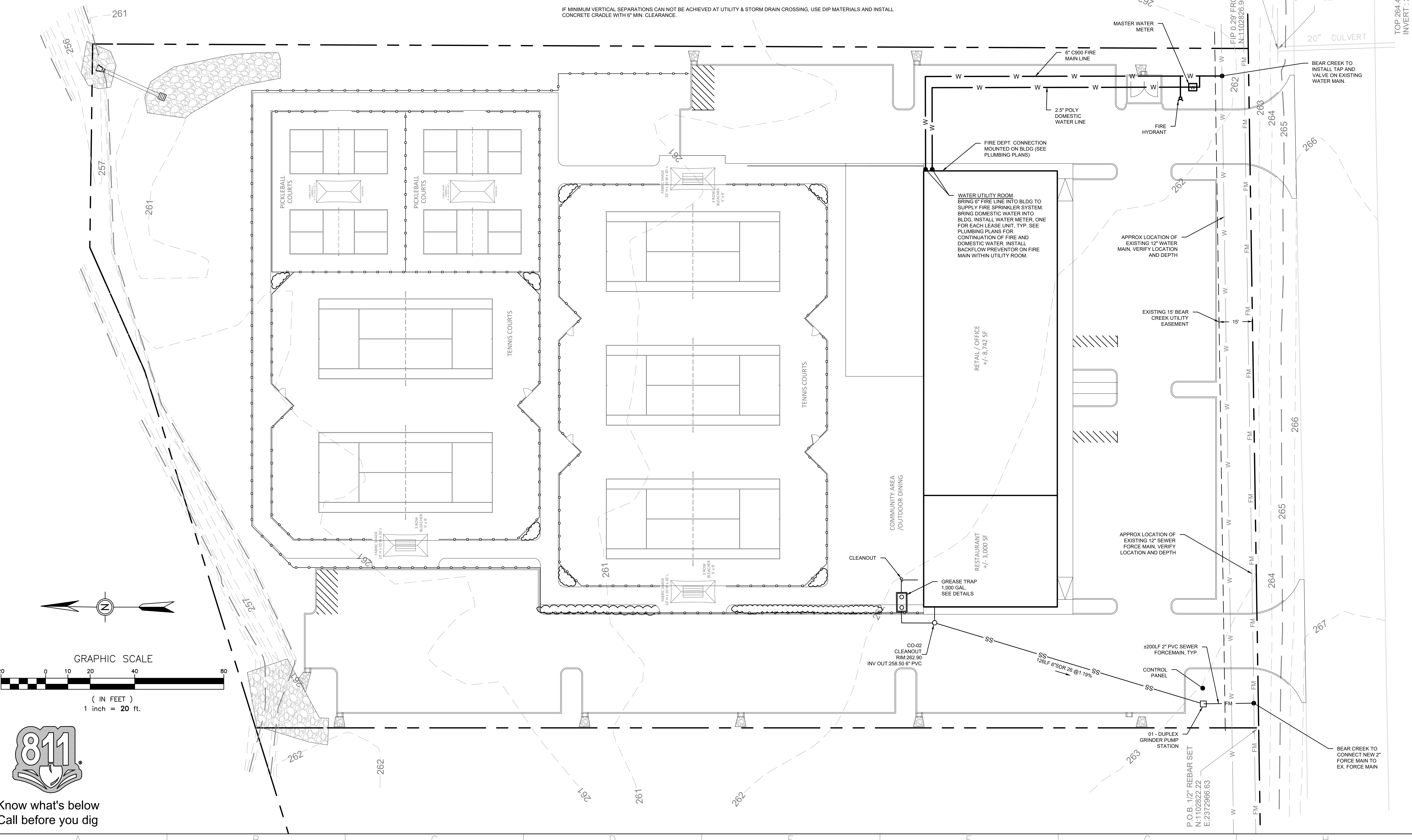
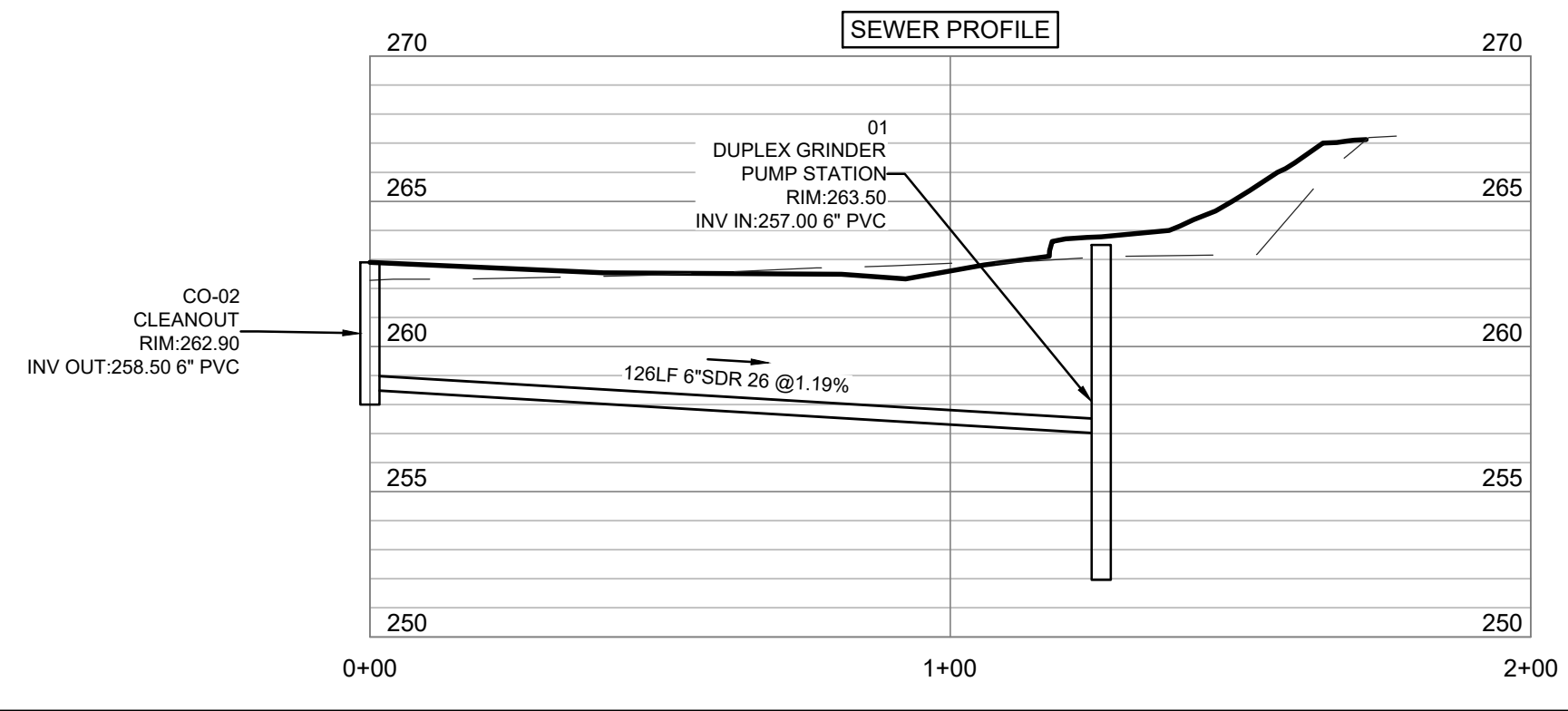
DRAWING SYMBOL LEGEND

| EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|---------------------|
| — FM — | — FM — | SEWER FORCE MAIN |
| — SS — | — SS — | SANITARY SEWER LINE |
| — W — | — W — | WATER LINE |

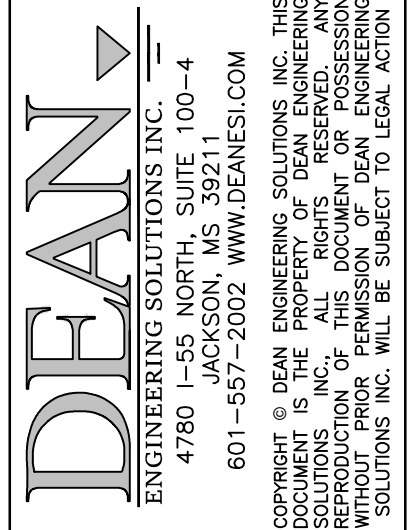
UTILITY PLAN NOTES

- BEAR CREEK COORDINATION:** CONTRACTOR SHALL COORDINATE WITH BEAR CREEK ALL WATER AND SEWER CONSTRUCTION IN ROW. BEAR CREEK SHALL INSTALL THE WATER INFRASTRUCTURE FROM THE EXISTING CONNECTION UP TO AND INCLUDING THE MASTER WATER METER. BEAR CREEK SHALL INSTALL THE PROPOSED FORCE MAIN CONNECTION TO EXISTING FORCE MAIN AND LEAVE A STUB OUT FOR CONTRACTOR.
 - DUPLEX GRINDER PUMP STATION:** PUMP STATION SHALL BE INSTALLED PER BEAR CREEK WATER ASSOCIATION CONSTRUCTION STANDARDS. SEE SPECIFICATIONS AND DETAILS FOR ADDITIONAL CONSTRUCTION AND PERFORMANCE REQUIREMENTS.
 - GREASE TRAP:** CONTRACTOR SHALL INSTALL GREASE TRAP AND CONNECT TO NEAREST GRAVITY SEWER DISCHARGE LINE ENSURING STRUCTURE OPERATES PROPERLY AND AS INTENDED VIA GRAVITY FLOW. SEE DETAILS FOR ADDITIONAL CONSTRUCTION REQUIREMENTS. ADJUST INVERTS AS NEEDED TO ENSURE GRAVITY FLOW ACROSS THE STRUCTURE. CONFIRM INVERT ELEVATIONS AND PIPE CONNECTIONS WITH GREASE TRAP MANUFACTURER PRIOR TO FABRICATION AND INSTALLATION.
 - INSPECTIONS:** CONTRACTOR SHALL NOTIFY BEAR CREEK WATER ASSOCIATION TO INSPECT ALL WATER AND SEWER MAINS PRIOR TO PLACEMENT OF BACKFILL.
 - MEP COORDINATION:** THIS PLAN SHOWS WATER & SEWER SERVICES FOR THE SITE UP TO 5' FROM THE BUILDING. REFER TO MECHANICAL, ELECTRICAL, PLUMBING (MEP) PLANS FOR CONTINUATION INTO BUILDING.
 - SEWER CLEANOUTS:** SEE MEP PLANS FOR LOCATION AND ELEVATIONS OF SEWER OUT OF BUILDING. COORDINATE SEWER OUT OF BUILDING WITH CLEANOUTS TO MAIN. INSTALL CLEANOUTS TOPS FLUSH WITH ADJACENT PAVEMENT SURFACE.
 - WATER LINE COVER:** THE WATER LINE SHALL HAVE A MIN. OF 3' GROUND COVER.
 - MINIMUM UTILITY SEPARATION DISTANCES:**
SANITARY SEWER MAINS AND STORM SEWER - 24" VERTICAL
SANITARY SEWER MAINS AND WATER - 10" HORIZONTAL OR 18" VERTICAL
STORM SEWER AND WATER - 18" VERTICAL
- IF MINIMUM VERTICAL SEPARATIONS CAN NOT BE ACHIEVED AT UTILITY & STORM DRAIN CROSSING, USE DIP MATERIALS AND INSTALL CONCRETE CRADLE WITH 6" MIN. CLEARANCE.

PROFILE NOTES:
SOLID LINE=PROPOSED GRADE,
DASHED LINE=EXISTING GROUND.
SCALE: 1"=30' HORIZONTAL
VERTICAL EXAGGERATION=5X



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| No. | Description | Date |
|-----|---------------------------------|------------|
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

OWNER:
DANNY BOLANOS
115 HONOURS LANE,
MADISON MS 39110

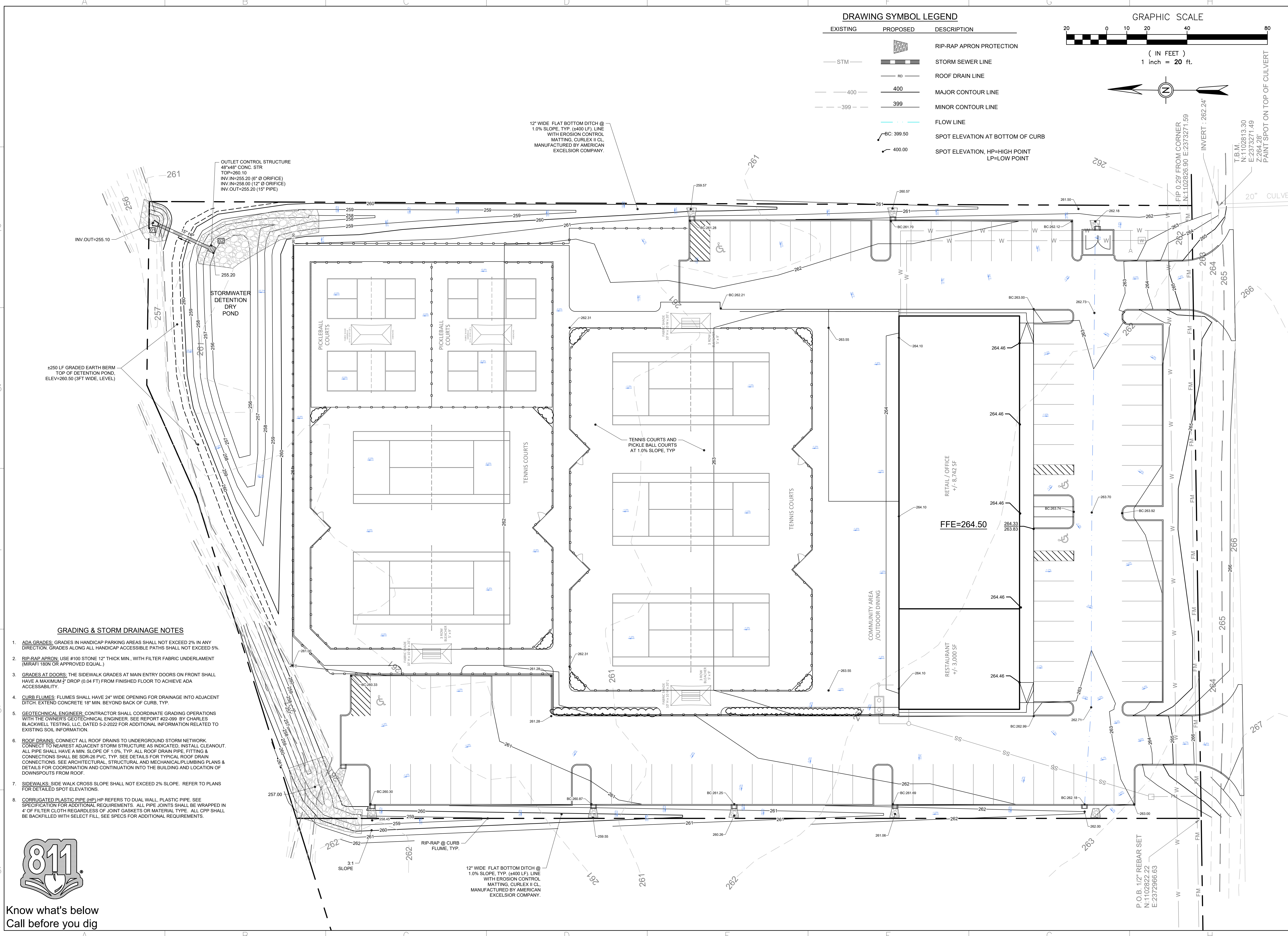
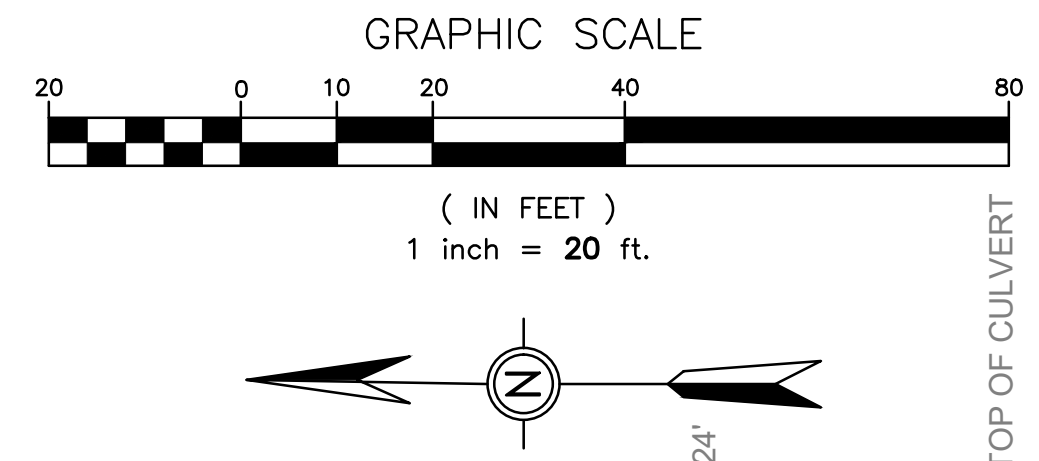
PROJECT TITLE: **MAGNOLIA COMMONS**
SHEET TITLE:
GRADING PLAN
SITE DEVELOPMENT

JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

SHEET NUMBER:
5

DRAWING SYMBOL LEGEND

| EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|---|
| — STM — | | RIP-RAP APRON PROTECTION |
| — 400 — | | STORM SEWER LINE |
| — 399 — | | ROOF DRAIN LINE |
| | | MAJOR CONTOUR LINE |
| | | MINOR CONTOUR LINE |
| | | FLOW LINE |
| | | SPOT ELEVATION AT BOTTOM OF CURB |
| | | SPOT ELEVATION, HP=HIGH POINT LP=LOW POINT |



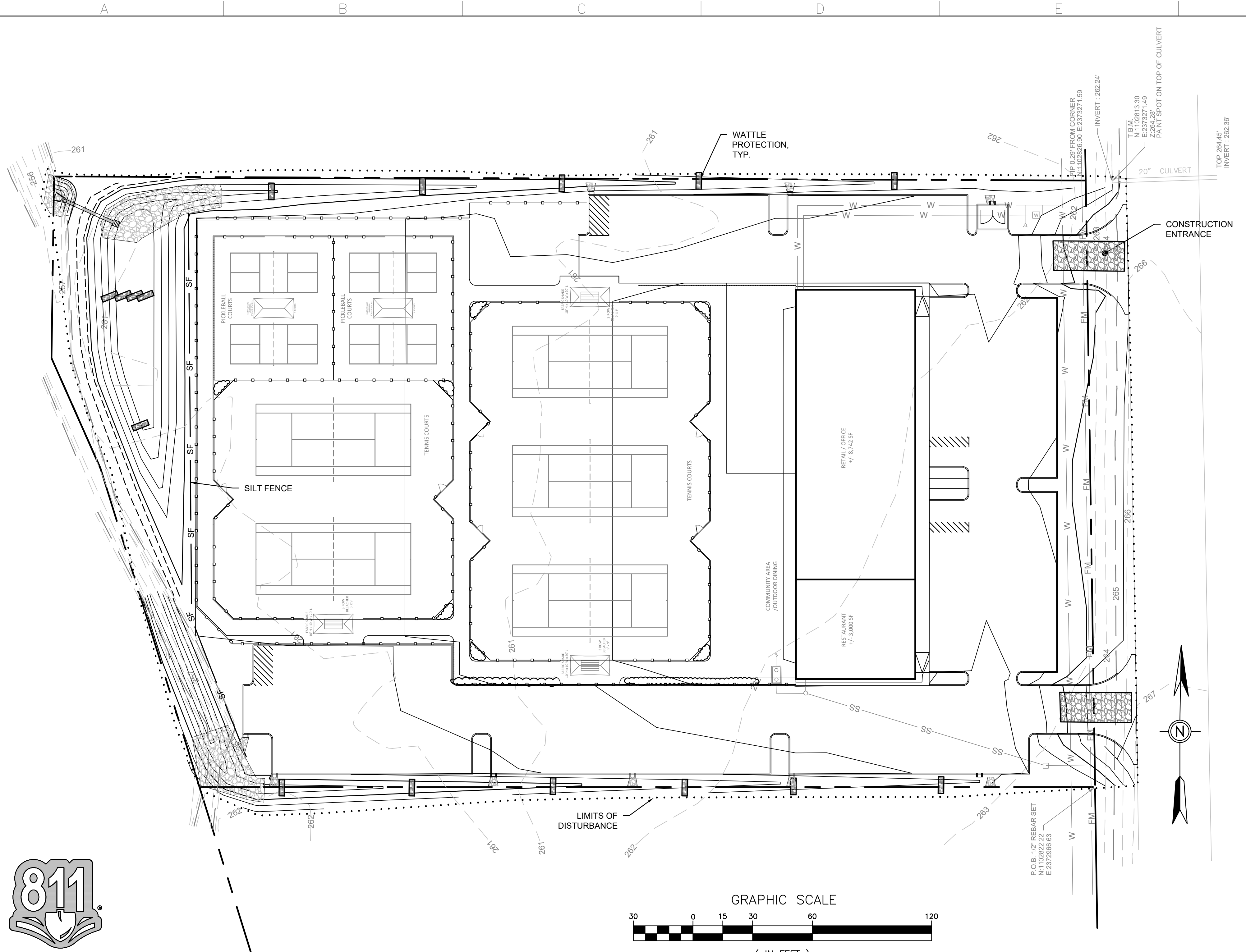
GRADING & STORM DRAINAGE NOTES

- ADA GRADES: GRADES IN HANDICAP PARKING AREAS SHALL NOT EXCEED 2% IN ANY DIRECTION. GRADES ALONG ALL HANDICAP ACCESSIBLE PATHS SHALL NOT EXCEED 5%.
- RIP-RAP APRON: USE #100 STONE 12" THICK MIN., WITH FILTER FABRIC UNDERLAMENT (MIRAFI 160N OR APPROVED EQUAL.)
- GRADES AT DOORS: THE SIDEWALK GRADES AT MAIN ENTRY DOORS ON FRONT SHALL HAVE A MAXIMUM 2" DROP (0.04 FT) FROM FINISHED FLOOR TO ACHIEVE ADA ACCESSIBILITY.
- CURB FLUMES: FLUMES SHALL HAVE 24" WIDE OPENING FOR DRAINAGE INTO ADJACENT DITCH. EXTEND CONCRETE 18" MIN. BEYOND BACK OF CURB, TYP.
- GEOTECHNICAL ENGINEER: CONTRACTOR SHALL COORDINATE GRADING OPERATIONS WITH THE OWNER'S GEOTECHNICAL ENGINEER. SEE REPORT #22-099 BY CHARLES BLACKWELL TESTING, LLC, DATED 5-2-2022 FOR ADDITIONAL INFORMATION RELATED TO EXISTING SOIL INFORMATION.
- ROOF DRAINS: CONNECT ALL ROOF DRAINS TO UNDERGROUND STORM NETWORK. CONNECT TO NEAREST ADJACENT STORM STRUCTURE AS INDICATED. INSTALL CLEANOUT. ALL PIPE SHALL HAVE A MIN. SLOPE OF 1.0%, TYP. ALL ROOF DRAIN PIPE, FITTING & CONNECTIONS SHALL BE SDR-26 PVC, TYP. SEE DETAILS FOR TYPICAL ROOF DRAIN CONNECTIONS. SEE ARCHITECTURAL, STRUCTURAL AND MECHANICAL/PLUMBING PLANS & DETAILS FOR COORDINATION AND CONTINUATION INTO THE BUILDING AND LOCATION OF DOWNSPOUTS FROM ROOF.
- SIDEWALKS: SIDE WALK CROSS SLOPE SHALL NOT EXCEED 2% SLOPE. REFER TO PLANS FOR DETAILED SPOT ELEVATIONS.
- CORRUGATED PLASTIC PIPE (HP) HP REFERS TO DUAL WALL, PLASTIC PIPE. SEE SPECIFICATION FOR ADDITIONAL REQUIREMENTS. ALL PIPE JOINTS SHALL BE WRAPPED IN 4" OF FILTER CLOTH REGARDLESS OF JOINT GASKETS OR MATERIAL TYPE. ALL CPP SHALL BE BACKFILLED WITH SELECT FILL, SEE SPECS FOR ADDITIONAL REQUIREMENTS.



Know what's below
Call before you dig

C:\Users\kenneth\OneDrive - deaneengineering.com\Projects\DEAN\Design\Design\Design\Bolanos.dwg 5 - Grading Plan, 10/05/2023 13:38:59 AM, dnm, DWG To PDF.pc3, AECI, eprintd © 2010 - 36,00 inches, 1:1

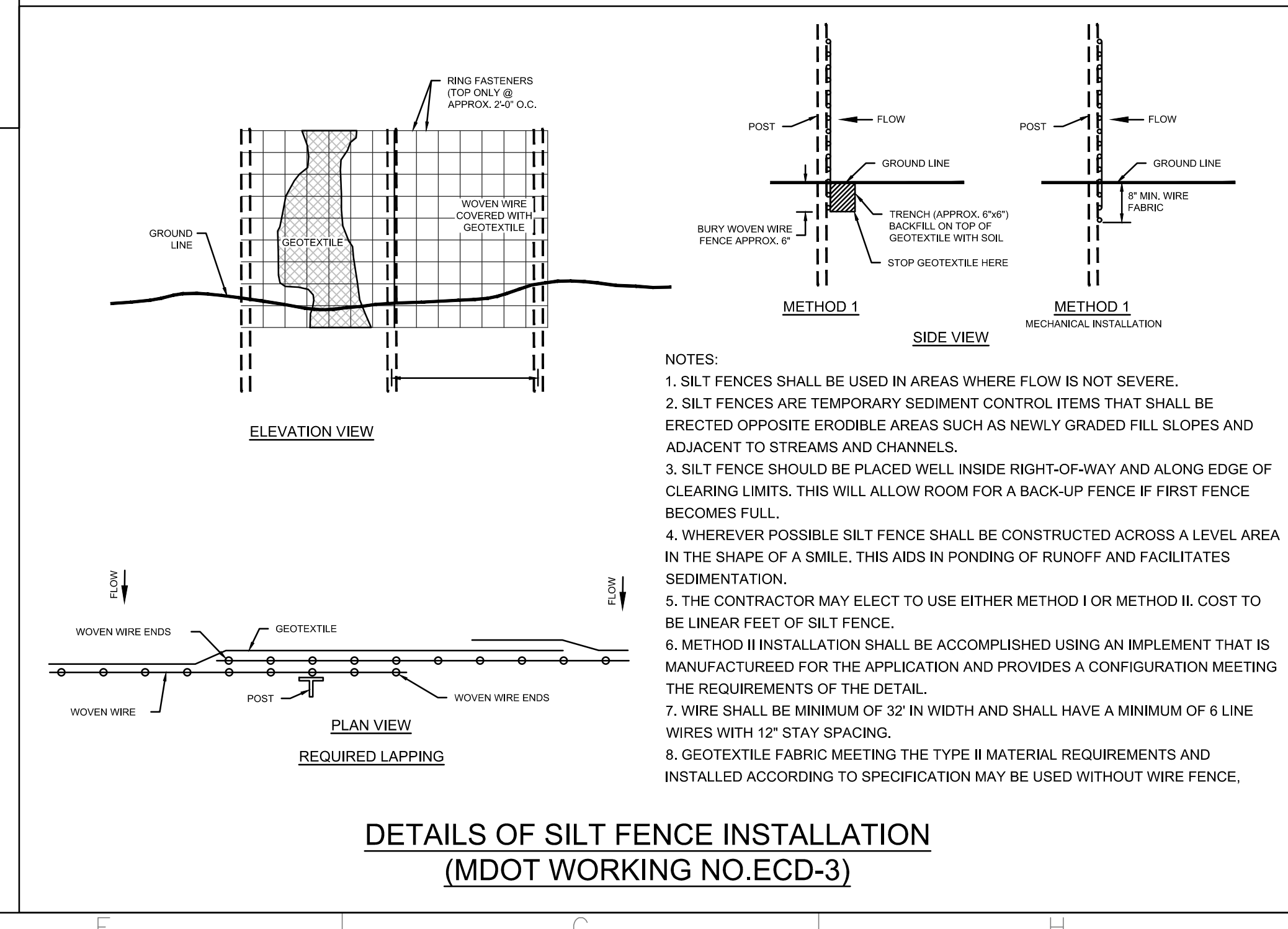
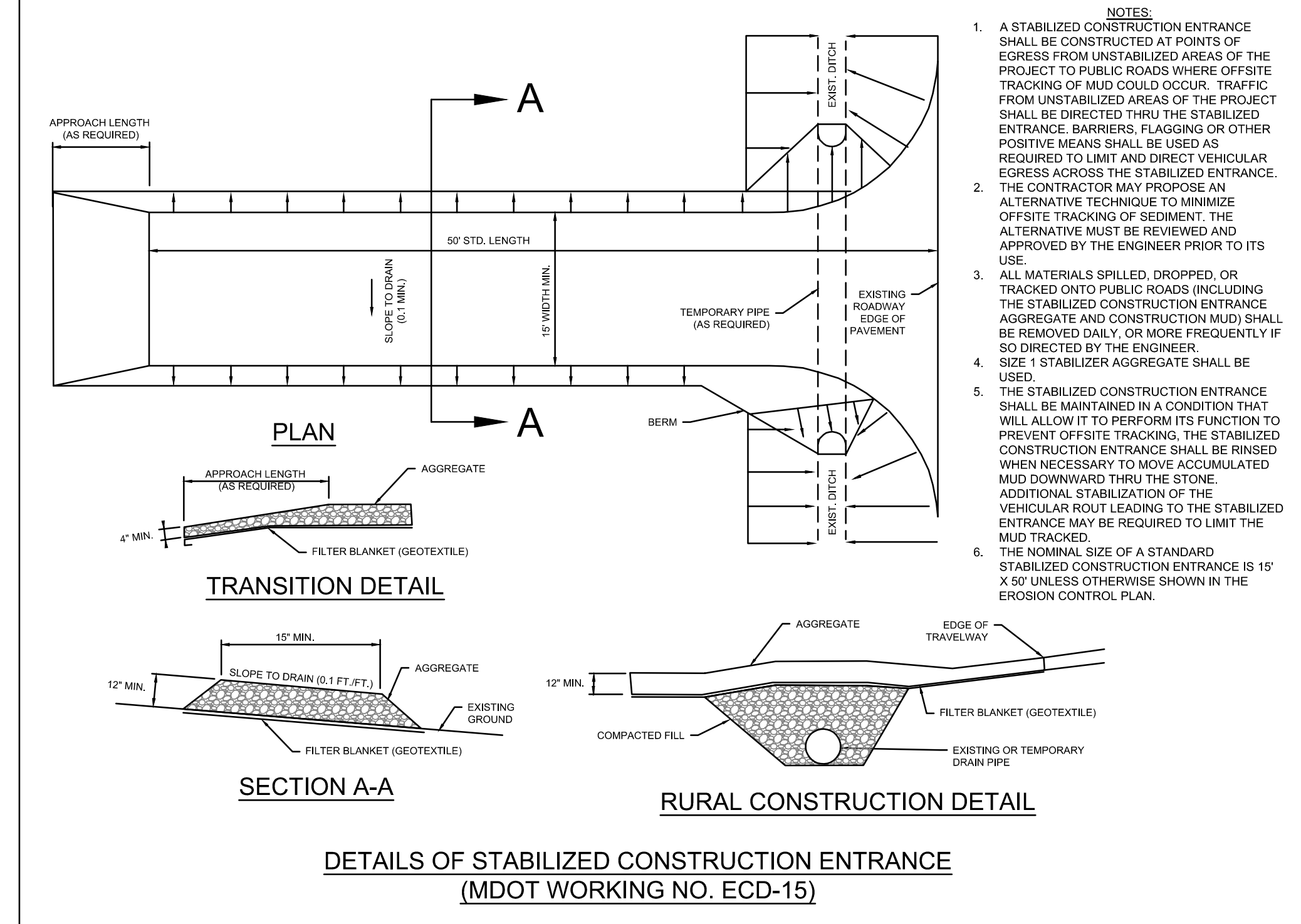
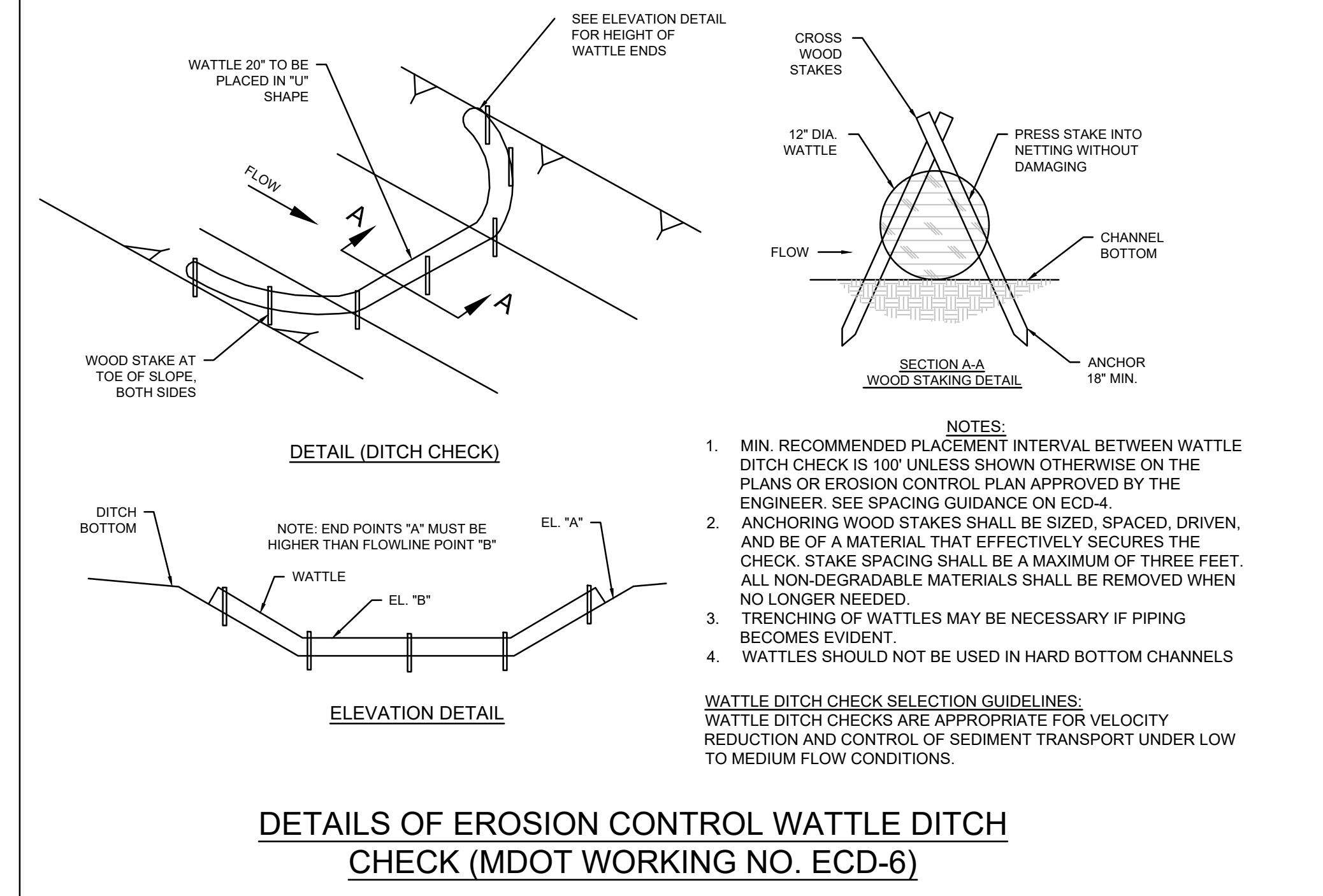


EROSION CONTROL PLAN NOTES

- TOTAL DISTURBED SITE AREA = 3.70 AC.
- VEGETATIVE CONTROLS:** A COMBINATION OF TEMPORARY AND PERMANENT GRASSING WILL BE USED TO PROTECT SLOPES AS CONSTRUCTION PROGRESSES. REFER TO VEGETATION SPECIFICATIONS FOR DETAILS. SHOULD A DISTURBED AREA BE LEFT UNDISTURBED FOR 14 DAYS OR MORE, TEMPORARY OR PERMANENT VEGETATION SHALL BE PLACED IMMEDIATELY.
- STRUCTURAL CONTROLS:** INSTALL CONSTRUCTION ENTRANCES, DIVERSION DITCHES, WATTLE CHECK DAMS, SILT FENCE AND ALL OTHER STRUCTURAL BMPs AS SHOWN BELOW. PERMANENT EROSION CONTROL BMPs AND STRUCTURAL BMPs SHOULD BE PLACED AS SOON AS POSSIBLE TO ENSURE FINAL STABILIZATION OF THE SITE.
- WATTLE CHECK DAMS:** SILT FENCE AND HAY BALES ARE NOT ACCEPTABLE FORMS OF CHECK DAMS WITHIN TEMPORARY DIVERSION DITCHES, SWALES OR OTHER AREAS OF CONCENTRATED FLOW. CONTRACTOR SHALL USE SAND BAGS OR STONE DAMS TO CHECK FLOW. WATTLES MAY ALSO BE USED WHERE LOWER FLOWS/SMALLER DRAINAGE AREAS OCCUR.
- HOUSEKEEPING & MAINTENANCE PRACTICES:** ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. NON-FUNCTIONING EROSION CONTROLS SHALL BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL CONTROLS WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW. WALK THROUGH INSPECTIONS ARE RECOMMENDED BEFORE ANTICIPATED STORM EVENTS TO VERIFY THE INTEGRITY OF EROSION CONTROL MEASURES AND TO DETERMINE IF ADDITIONAL MEASURES ARE NEEDED. SEDIMENT BASINS WILL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT REACHES 2.0 FEET BELOW THE TOP OF THE RISER, AND/OR WHEN THE CAPACITY HAS BEEN REDUCED BY 50%. SILT FENCE SHALL BE CLEANED OUT WHEN SEDIMENT REACHES 1/3 TO 1/2 OF THE HEIGHT OF THE FENCE. MAINTENANCE AND REPAIR OF EQUIPMENT SHALL BE PERFORMED OFF-SITE. MATERIAL WASH OUT SHALL OCCUR EITHER OFF-SITE OR WITHIN DESIGNATED WASH OUT AREAS.
- POST-CONSTRUCTION CONTROL MEASURES:** AS CONSTRUCTION IS COMPLETED, PERMANENT VEGETATIVE GROWTH SHALL BE ESTABLISHED ON DISTURBED SOILS TO IMPROVE SOIL STABILITY AND PROVIDE A BUFFER ZONE FOR LOOSE MATERIAL. LINED DITCHES SHALL BE INSTALLED AS SPECIFIED IN THE EROSION CONTROL SEQUENCE TO REDUCE EROSION IN CONCENTRATED FLOW AREAS AND RIP-RAP WILL BE PLACED AS SPECIFIED TO DISSIPATE FLOW ENERGY AND REDUCE FLOW VELOCITY. TEMPORARY BMPs MUST BE REMOVED FROM THE SITE WHEN THEY ARE NO LONGER NEEDED.

DRAWING SYMBOL LEGEND

| PROPOSED | DESCRIPTION |
|----------|-----------------------------------|
| | SILT FENCE PROTECTION |
| | LIMITS OF DISTURBANCE |
| | WATTLE CHECK DAM/INLET PROTECTION |



Section 4, Item A)

DEAN ENGINEERING SOLUTIONS, INC.
ENGINEERING SOLUTIONS, INC.
4780 I-55 NORTH, SUITE 100-4
JACKSON, MS 39211
601-557-2002 WWW.DEANESI.COM

REGISTERED PROFESSIONAL ENGINEER
STATE OF MISSISSIPPI
20057
10-05-2023

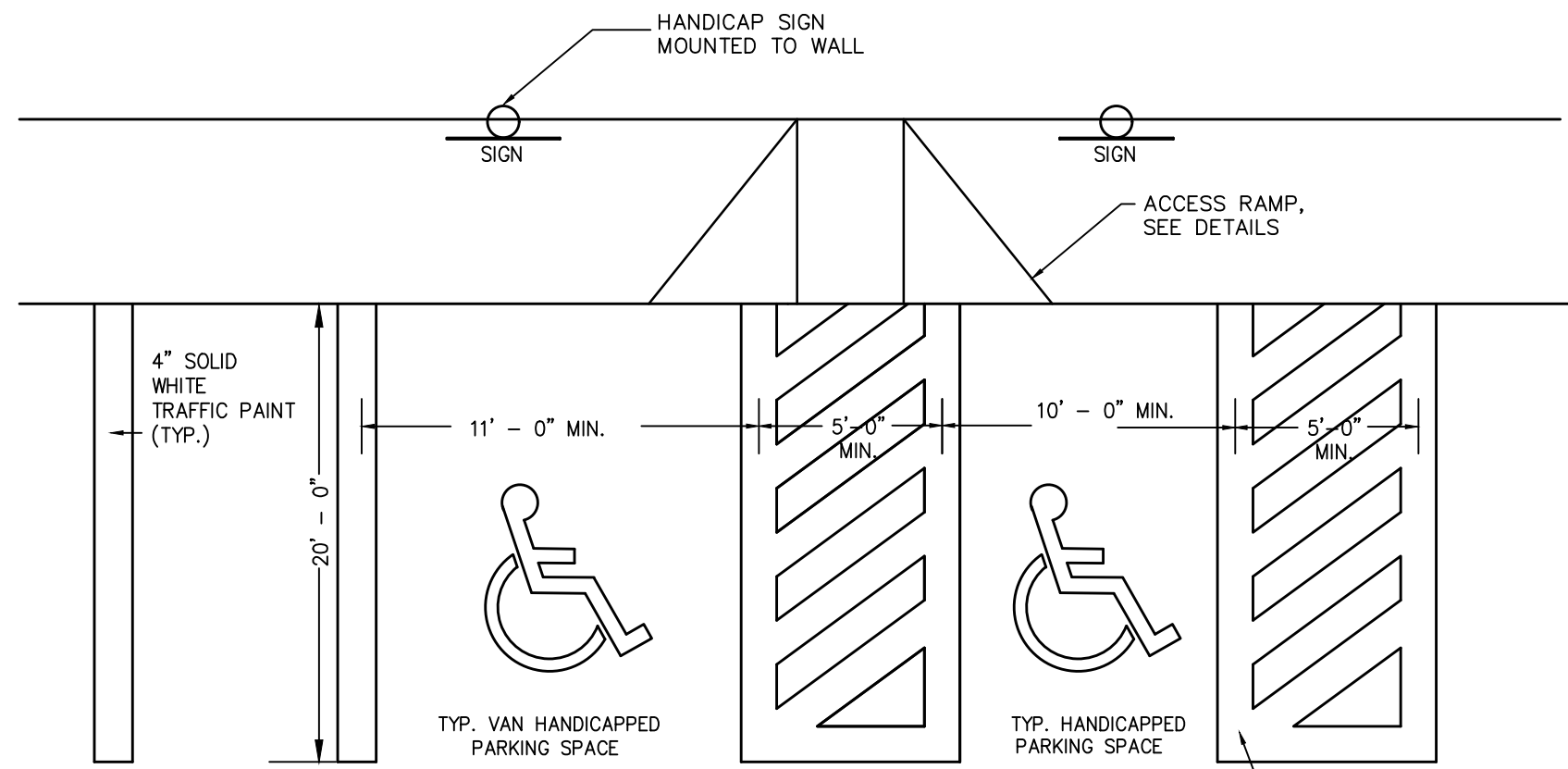
DRAWING ISSUED
Description: PLANS SUBMITTED FOR CITY REVIEW
Date: 10-05-2023

OWNER: **DANNY BOLANOS**
115 HONOURS LANE,
MADISON MS 39110

PROJECT TITLE: **MAGNOLIA COMMONS**
SHEET TITLE: **EROSION CONTROL PLAN (SWPPP)**
SITE DEVELOPMENT

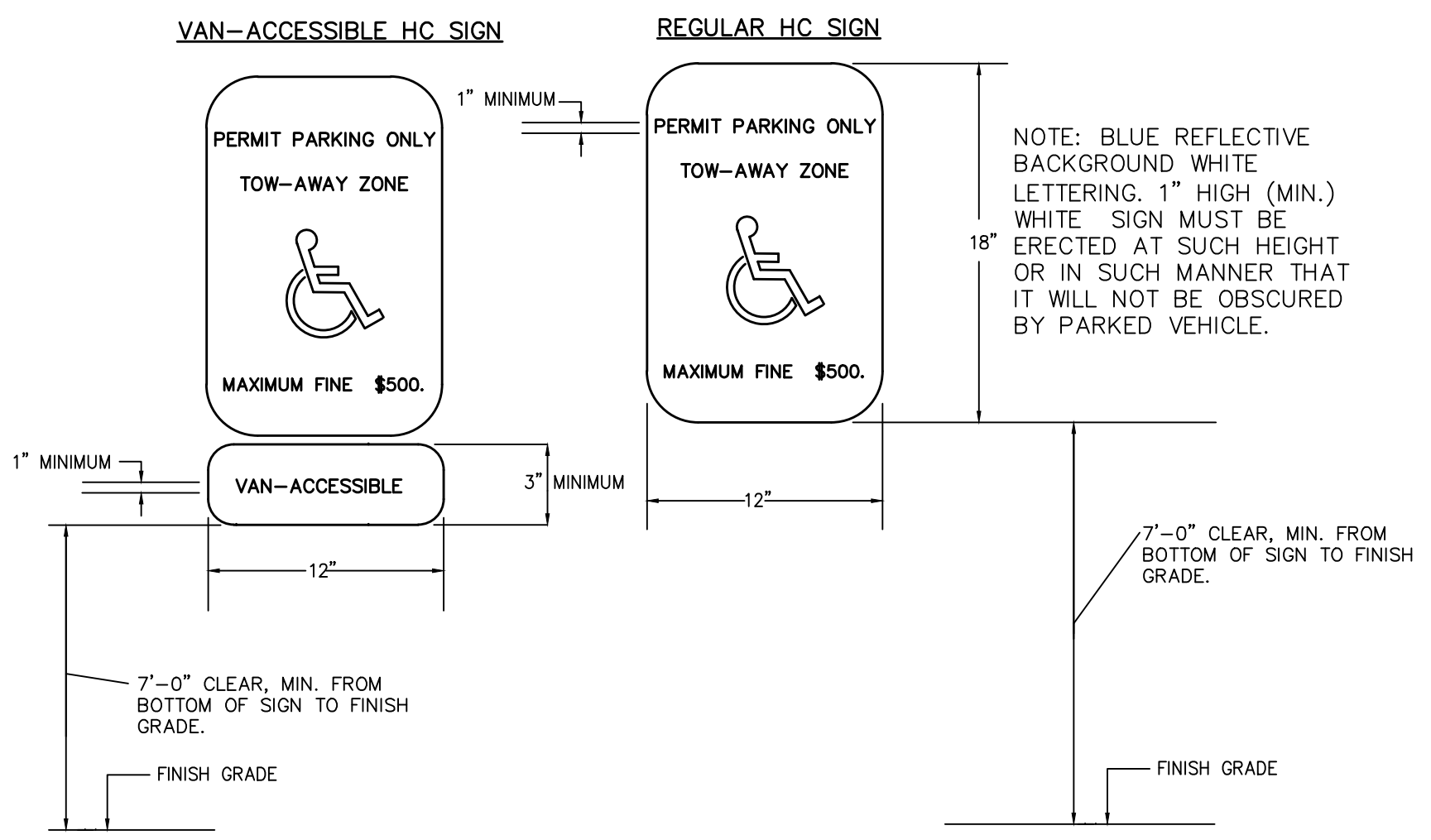
JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

SHEET NUMBER: **6**

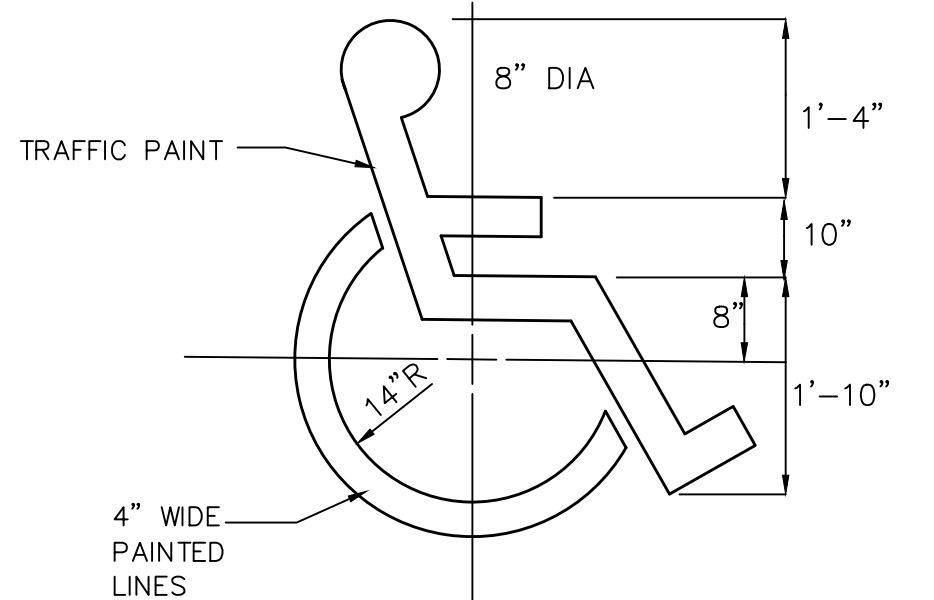


NOTES:
 1. VEHICLE PARKING AREA SLOPE: MAX SLOPE IN ADA PARKING STALL SHALL NOT EXCEED 1:20.
 2. SEE SITE PLAN FOR ACTUAL DIMENSIONS.

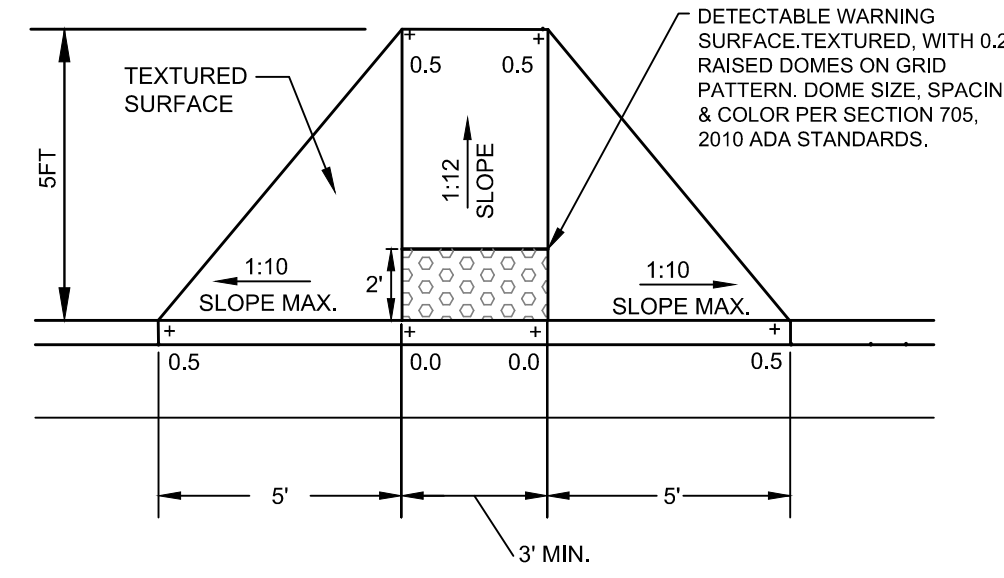
HANDICAPPED PAVEMENT STRIPING
N.T.S.



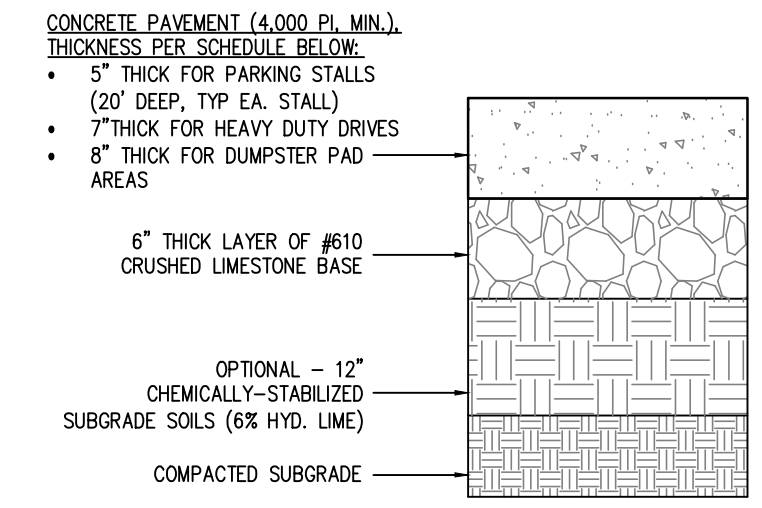
HANDICAP SIGN DETAILS
N.T.S.



PAINTED HANDICAPPED SYMBOL
N.T.S.

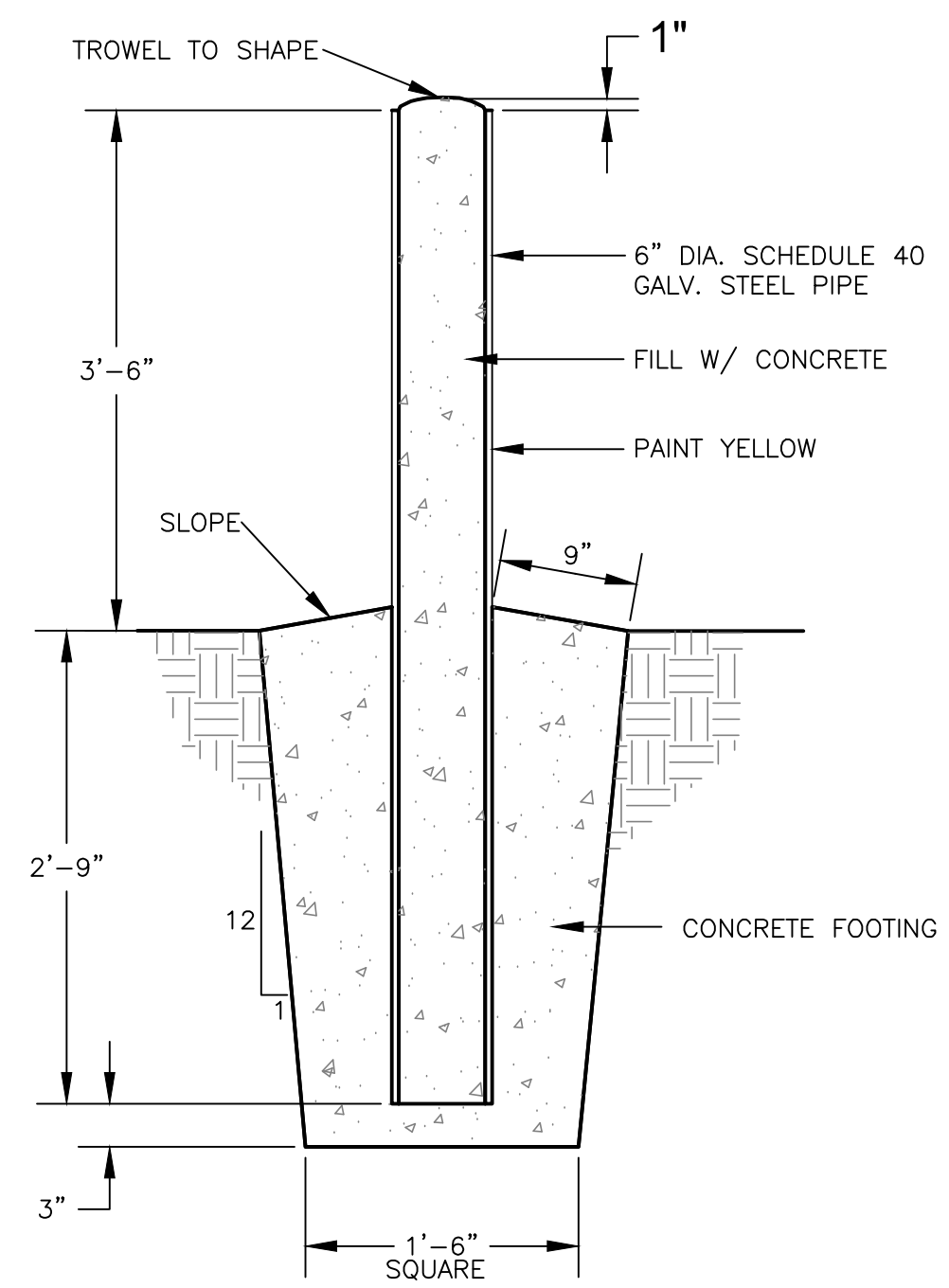


ADA RAMP DETAILS
N.T.S.

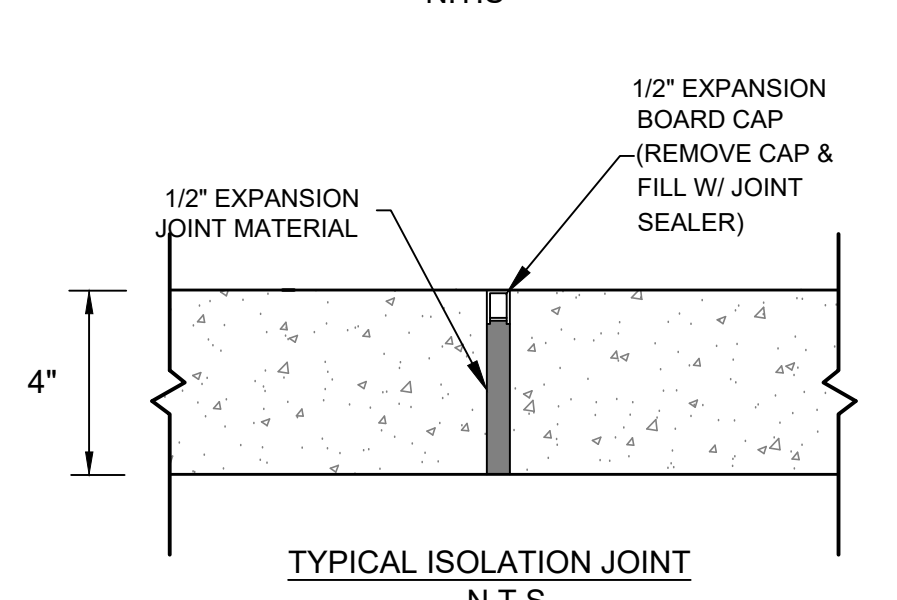
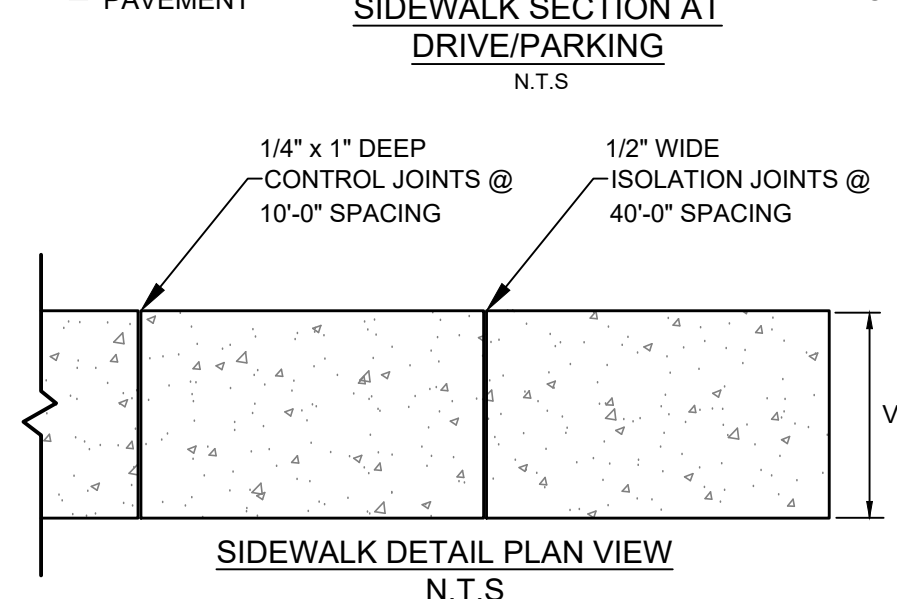
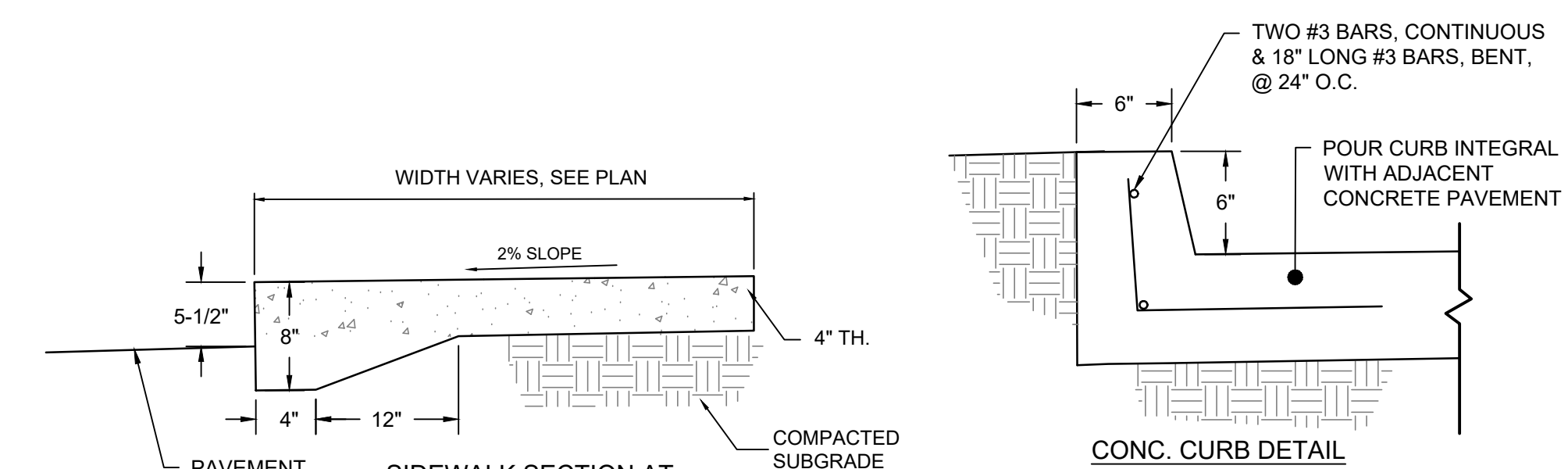


CONCRETE PAVEMENT
N.T.S.

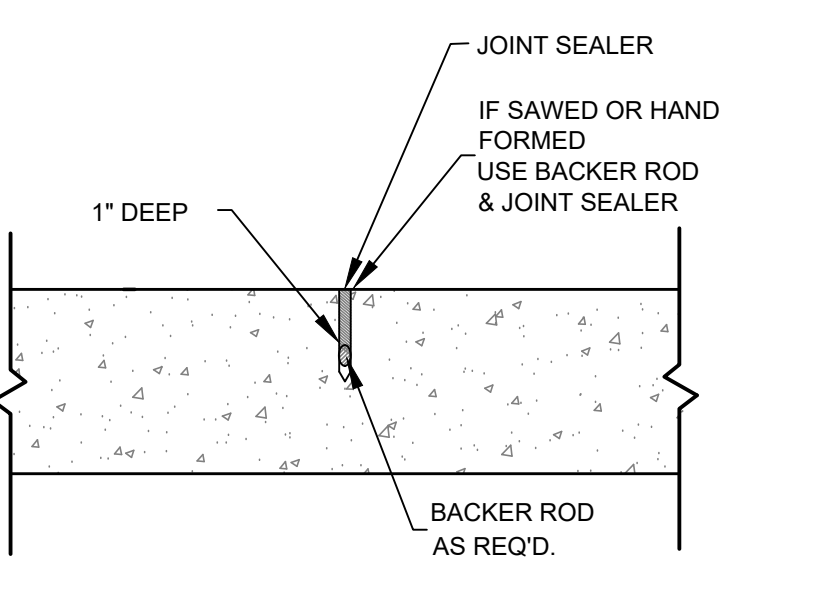
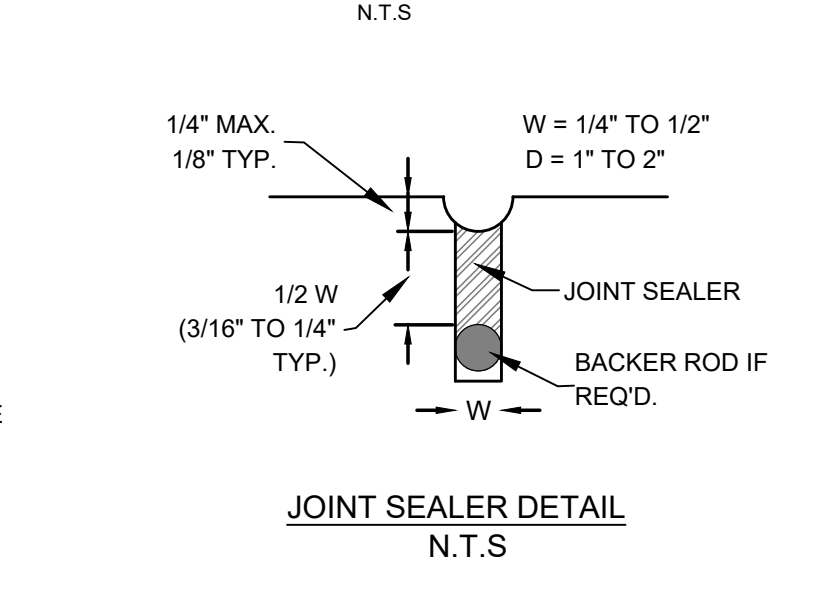
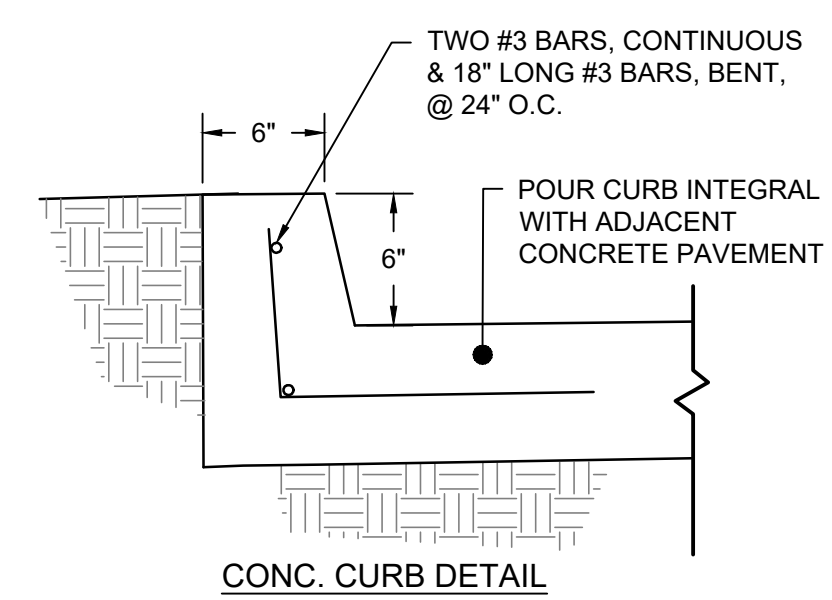
NOTE: OPTIONAL LAYER OF 12" LIME CAN BE USED TO HELP STABILIZE SUBGRADE SOILS EXHIBITING EXCESSIVE MOISTURE. LIME TREATED SUBGRADE SHALL EXTEND 12" BEYOND CONCRETE CURB AND GUTTER



BOLLARD DETAIL
N.T.S.



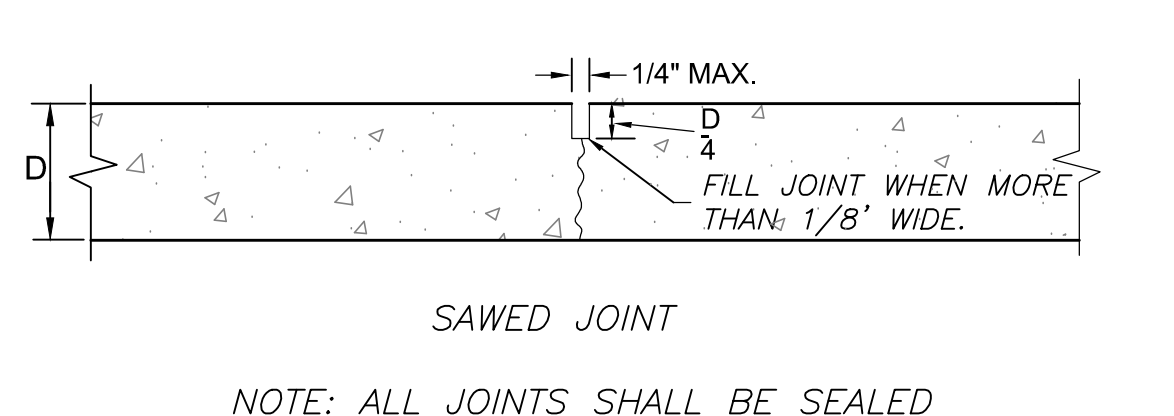
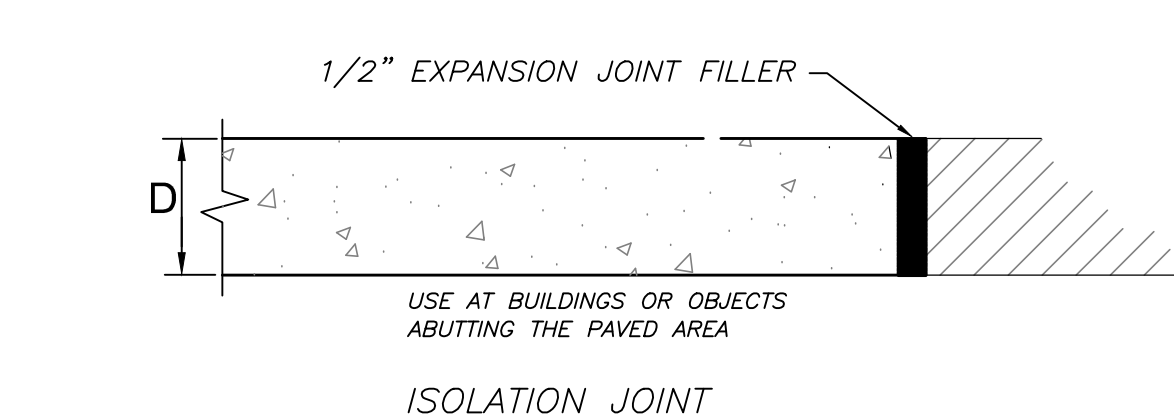
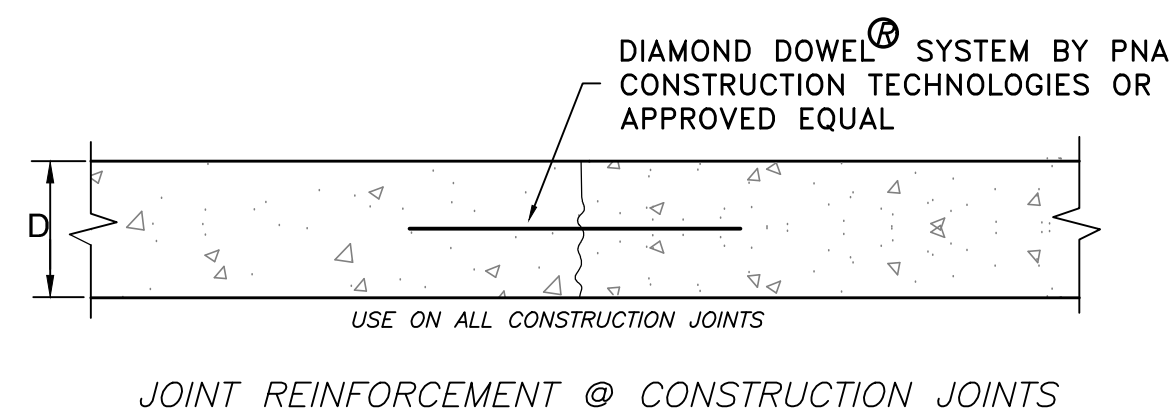
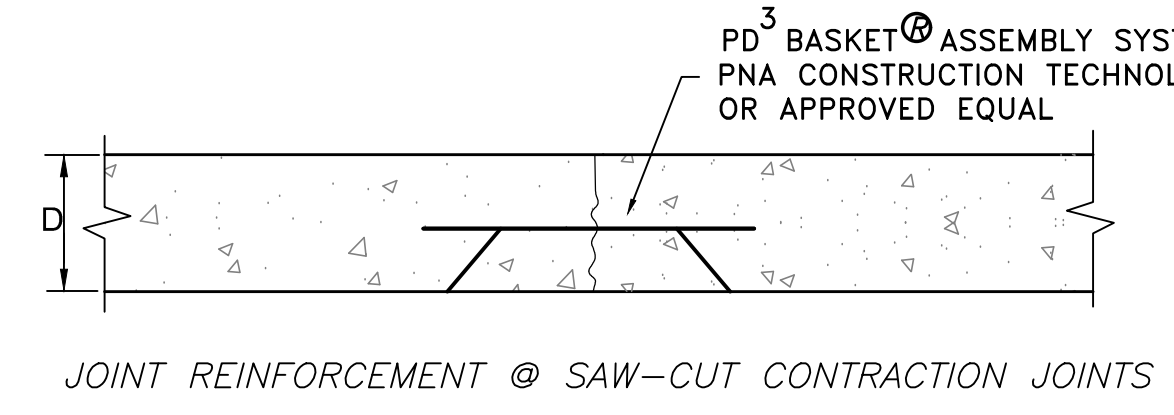
TYPICAL ISOLATION JOINT
N.T.S.



TYPICAL CONTROL JOINT
N.T.S.

NOTES:
 1. SIDEWALKS SHALL SLOPE AWAY FROM BLDG.
 2. USE 3,500 PSI STRENGTH CONCRETE MIN.

TYPICAL SIDEWALK & CURB DETAILS
N.T.S.



CONCRETE PAVING JOINT DETAILS
N.T.S.

DEAN
 ENGINEERING SOLUTIONS, INC.
 4780 I-55 NORTH, SUITE 100-4
 JACKSON, MS 39211
 601-557-2002 WWW.DEANESI.COM

W. SETH DEAN
 LICENSED PROFESSIONAL ENGINEER
 STATE OF MISSISSIPPI
 20957
 10-05-2023

| No. | Description | Date |
|-----|---------------------------------|------------|
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-03-2023 |

OWNER:
DANNY BOLANOS
 115 HONOURS LANE,
 MADISON MS 39110

PROJECT TITLE: **MAGNOLIA COMMONS**
 SHEET TITLE: **SITE DETAILS**
 SITE DEVELOPMENT

JOB NO.: 220502
 DATE: 17 MAY 2022
 SCALE: AS SHOWN
 DRAWN BY: WSD
 REVIEWED BY: WSD

SHEET NUMBER:
7

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DEAN ENGINEERING SOLUTIONS, INC. 4780 -55 NORTH, SUITE 100-4 JACKSON, MS 39211 601-557-2002 WWW.DEANESI.COM



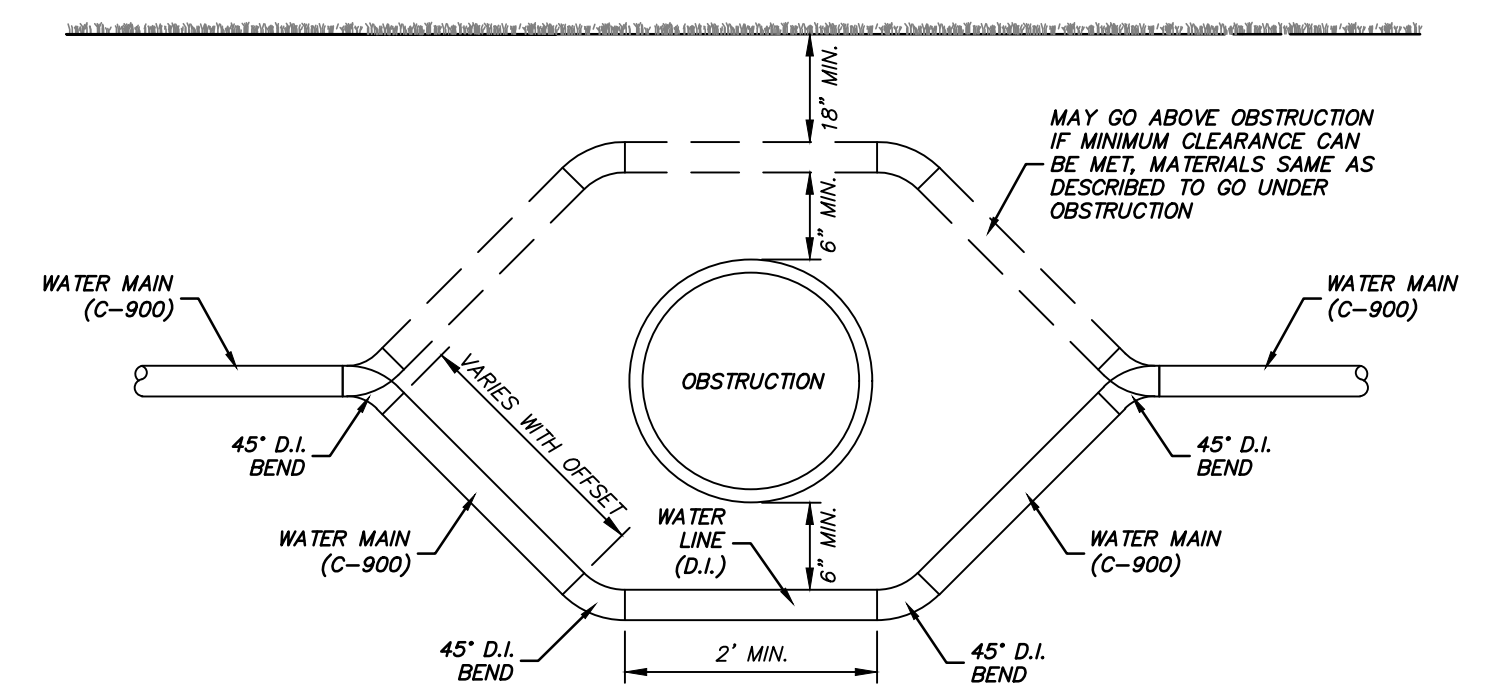
DRAWING ISSUED Description Date 10-05-2023 PLANS SUBMITTED FOR CITY REVIEW No. 1

OWNER: DANNY BOLANOS 115 HONOURS LANE, MADISON MS 39110

PROJECT TITLE: MAGNOLIA COMMONS SHEET TITLE: UTILITY DETAILS SITE DEVELOPMENT

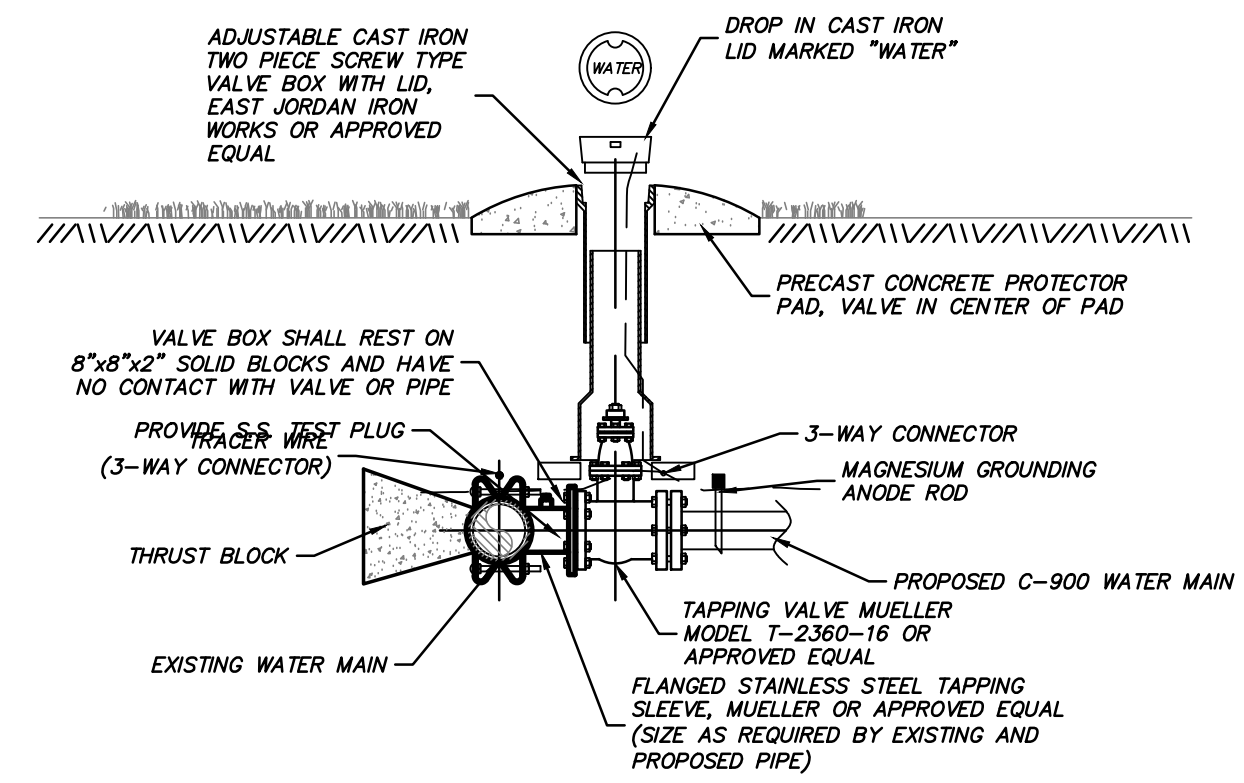
JOB NO.: 220502 DATE: 17 MAY 2022 SCALE: AS SHOWN DRAWN BY: WSD REVIEWED BY: WSD

SHEET NUMBER: 8

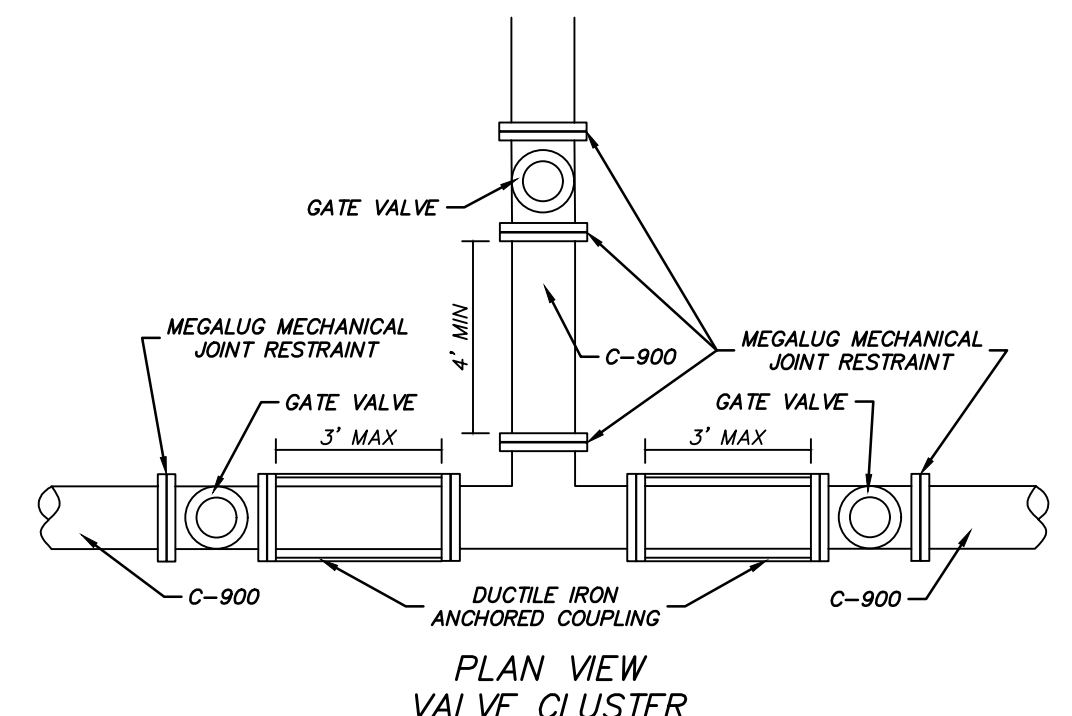


- WATER LINE OBSTRUCTION NOTES: 1. CONTRACTOR TO FOLLOW CLEARANCE REQUIREMENTS IN THE SPECIFICATIONS FOR WATER, STORM DRAIN AND SANITARY SEWER LINE CROSSINGS...

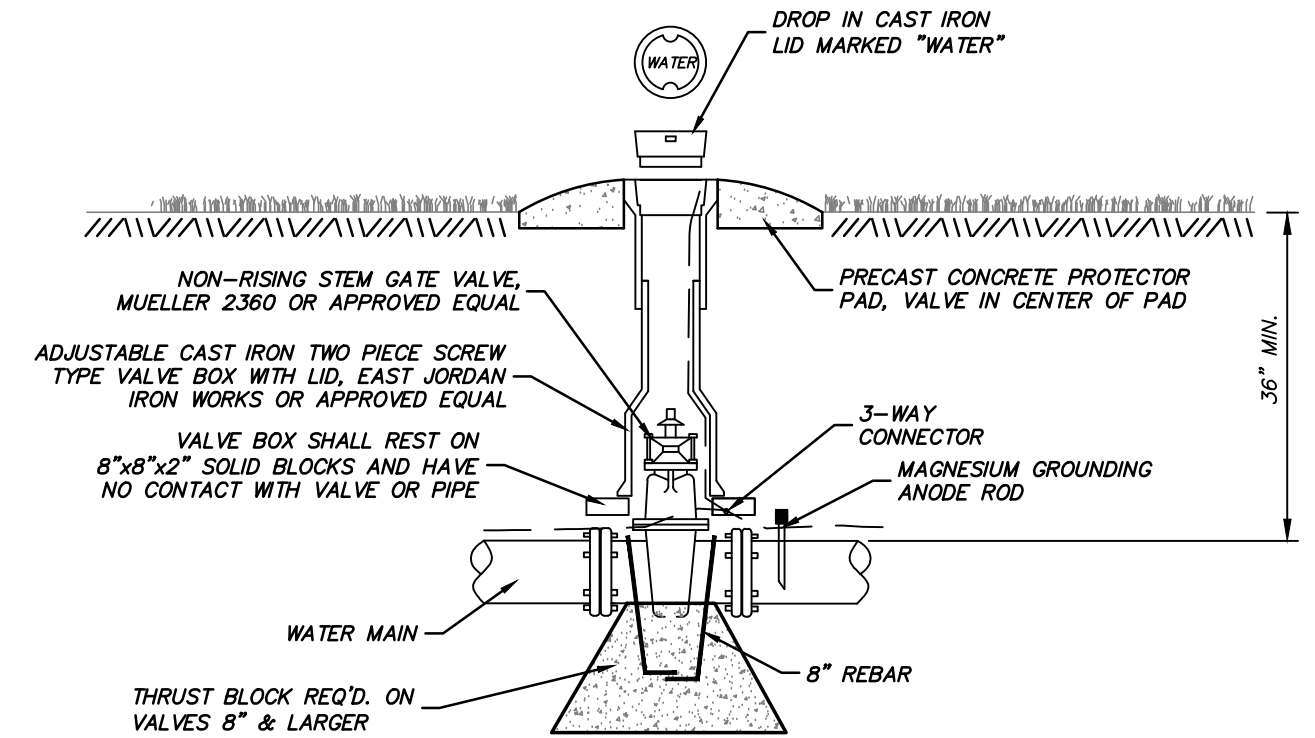
TYPICAL WATER LINE OBSTRUCTION



CONNECTION TO EXISTING WATER MAIN

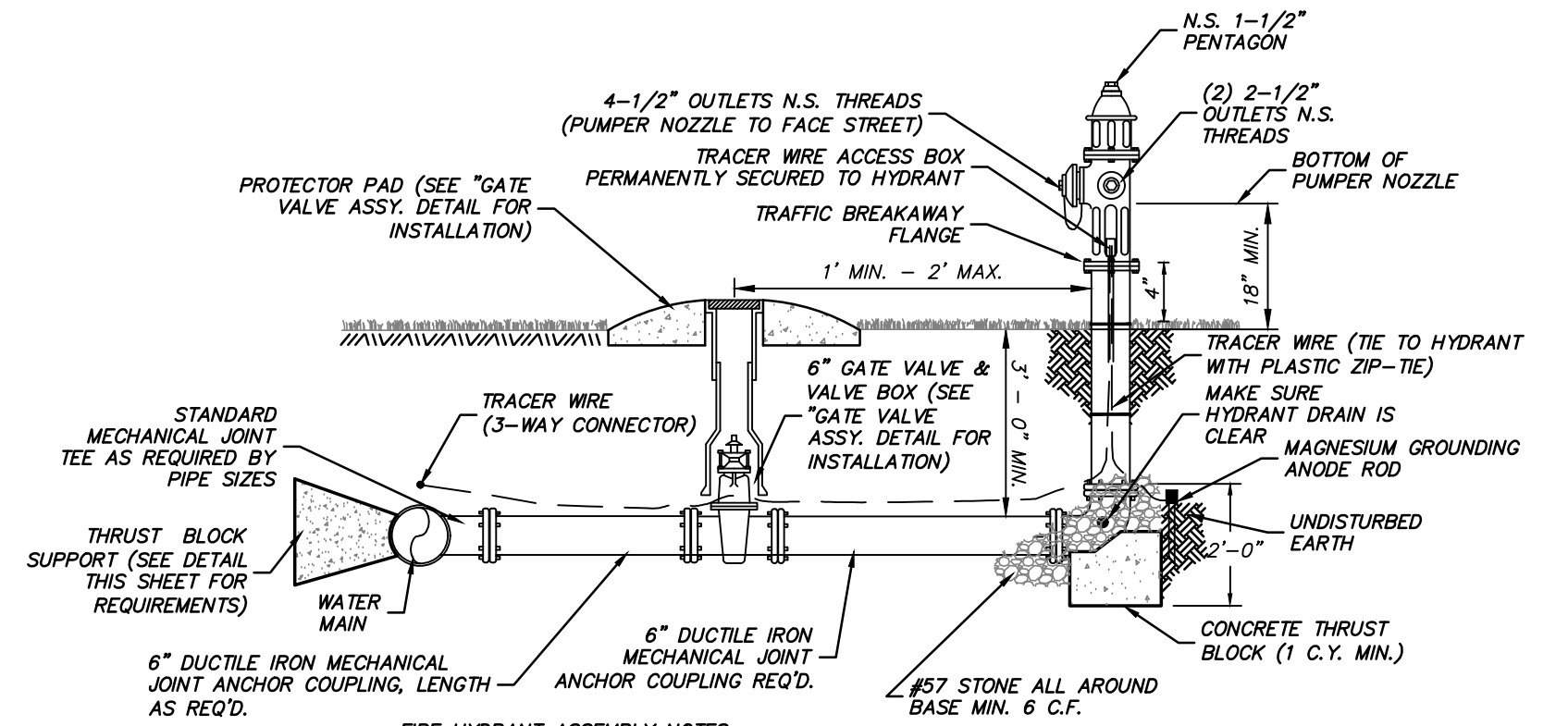


PLAN VIEW VALVE CLUSTER



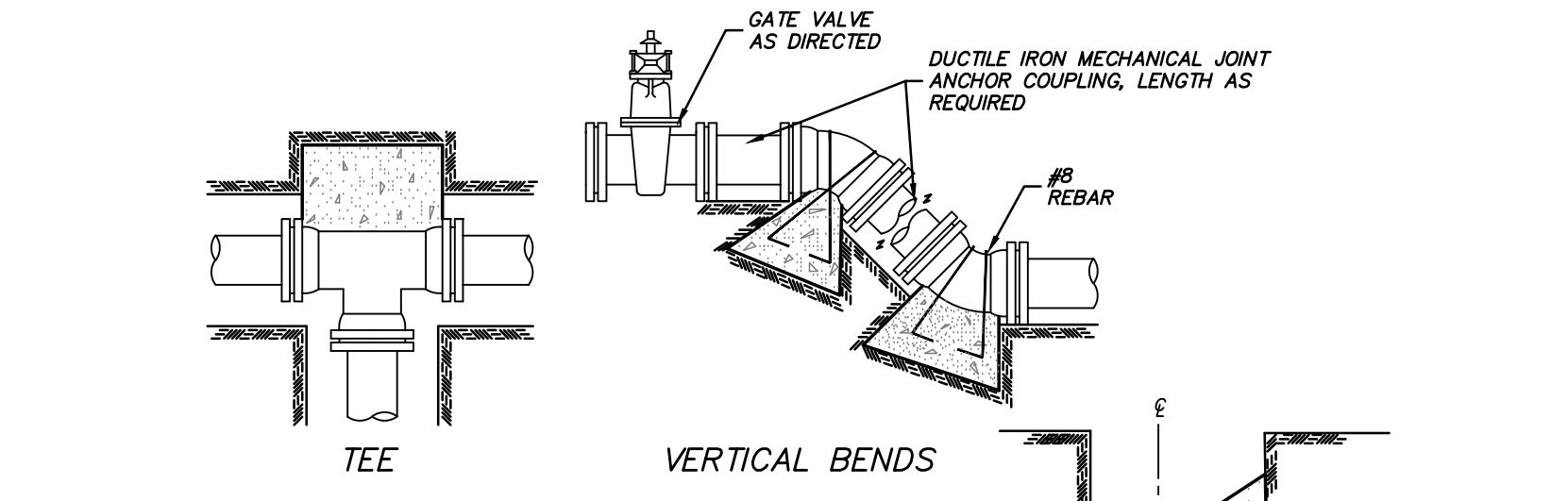
- GATE VALVE ASSEMBLY NOTES: 1. GATE VALVE SHALL MATCH SIZE OF LINE ON WHICH IT IS INSTALLED UNLESS OTHERWISE NOTED...

GATE VALVE ASSEMBLY



- FIRE HYDRANT ASSEMBLY NOTES: 1. ALL FIRE HYDRANT ASSEMBLIES TO INCLUDE GATE VALVES...

FIRE HYDRANT ASSEMBLY



TEE

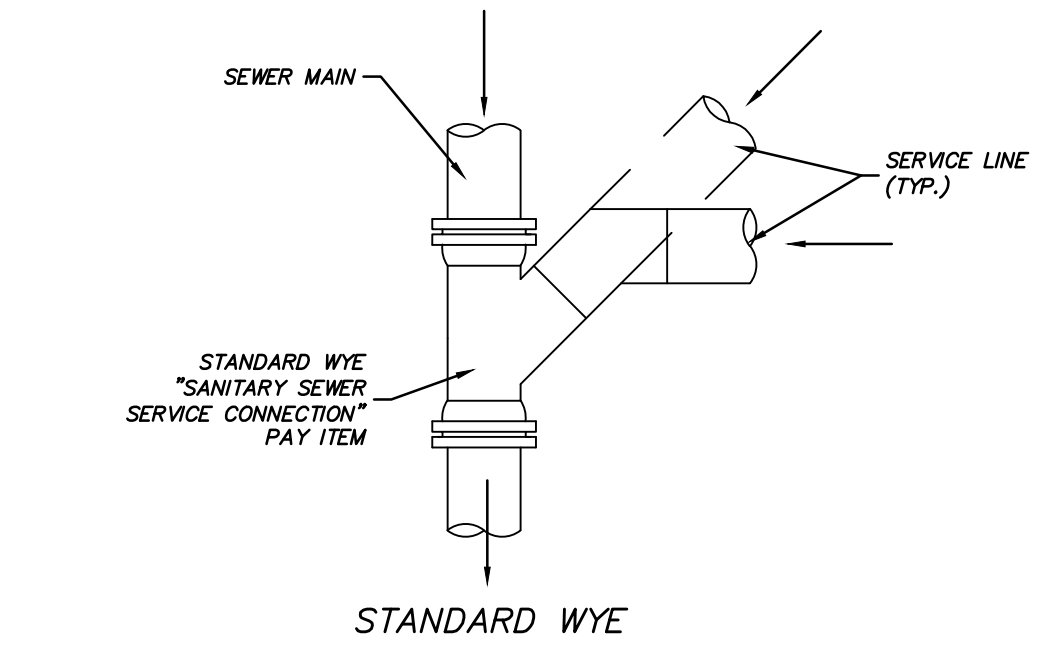
VERTICAL BENDS

PLUGGED TEE

90° BEND

Table with 2 columns: BEARING AREA IN SQ. FT. and BEARING AREA IN SQ. YDS. Rows include diameters from 4" to 16" and corresponding bearing areas.

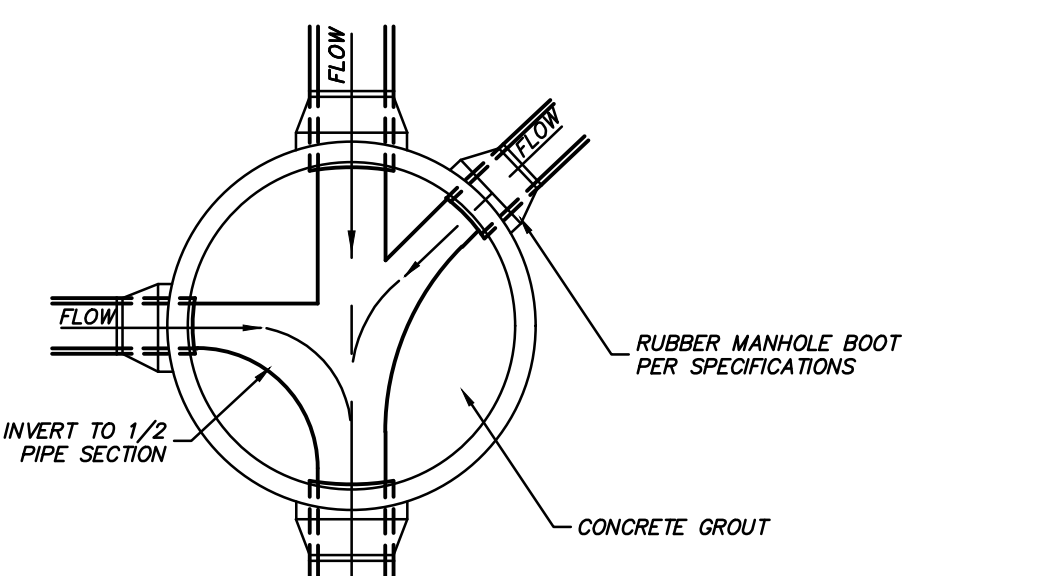
TYPICAL CROSS SECTION



STANDARD WYE

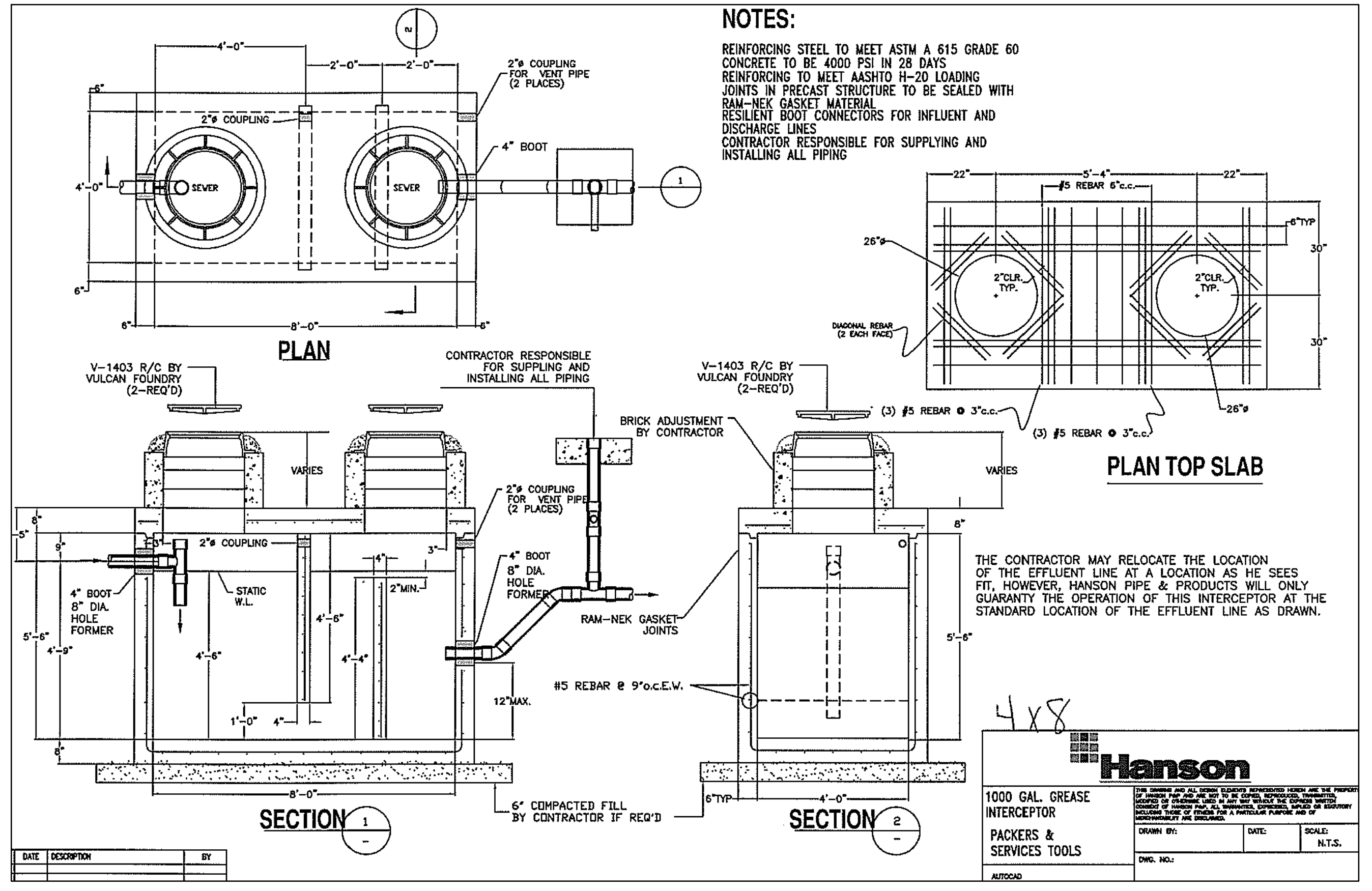
- THRUST BLOCK NOTES: 1. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH...

TYPICAL THRUST BLOCK



- NOTE: IF MANHOLE HAS ONLY ONE INFLUENT PIPE WHICH IS APPROXIMATELY 90 DEGREES TO EFFLUENT PIPE...

FLOW CHANNEL & PIPE CONNECTION



PLAN

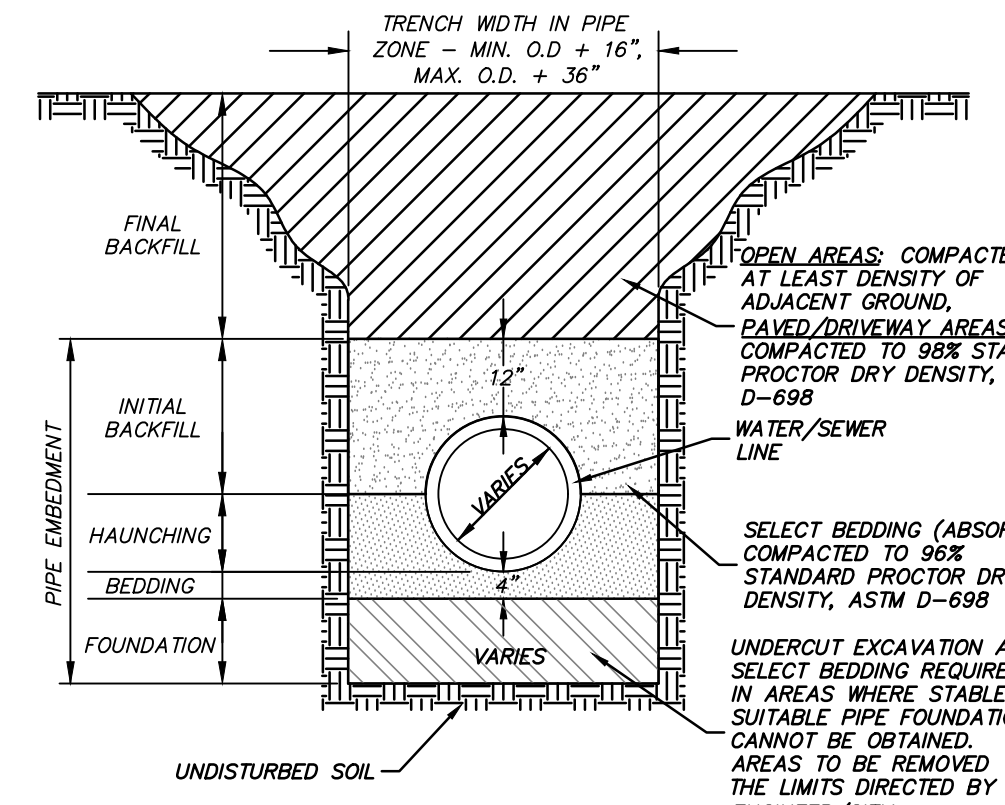
PLAN TOP SLAB

SECTION 1

SECTION 2

GREASE TRAP

Hanson logo and contact information for a 1000 GAL GREASE INTERCEPTOR, including phone, email, and website details.



TYPICAL TRENCH FOR PVC WATER & SEWER LINES

NOTE: DETAIL DRAWINGS ARE NOT TO SCALE UNLESS OTHERWISE NOTED ON SPECIFIC DETAIL.

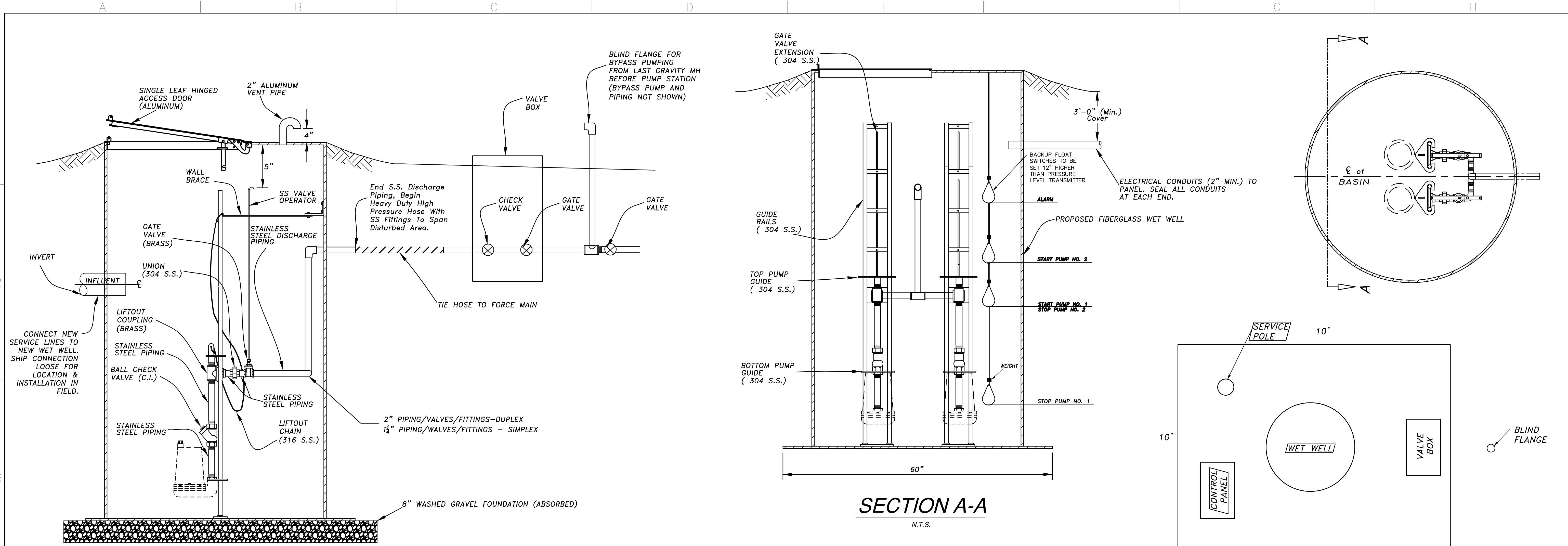
| No. | Description | Date |
|-----|---------------------------------|------------|
| 1 | PLANS SUBMITTED FOR CITY REVIEW | 10-05-2023 |

OWNER:
DANNY BOLANOS
115 HONOURS LANE,
MADISON MS 39110

PROJECT TITLE: **MAGNOLIA COMMONS**
SHEET TITLE:
PUMP STATION DETAILS
SITE DEVELOPMENT

JOB NO.: 220502
DATE: 17 MAY 2022
SCALE: AS SHOWN
DRAWN BY: WSD
REVIEWED BY: WSD

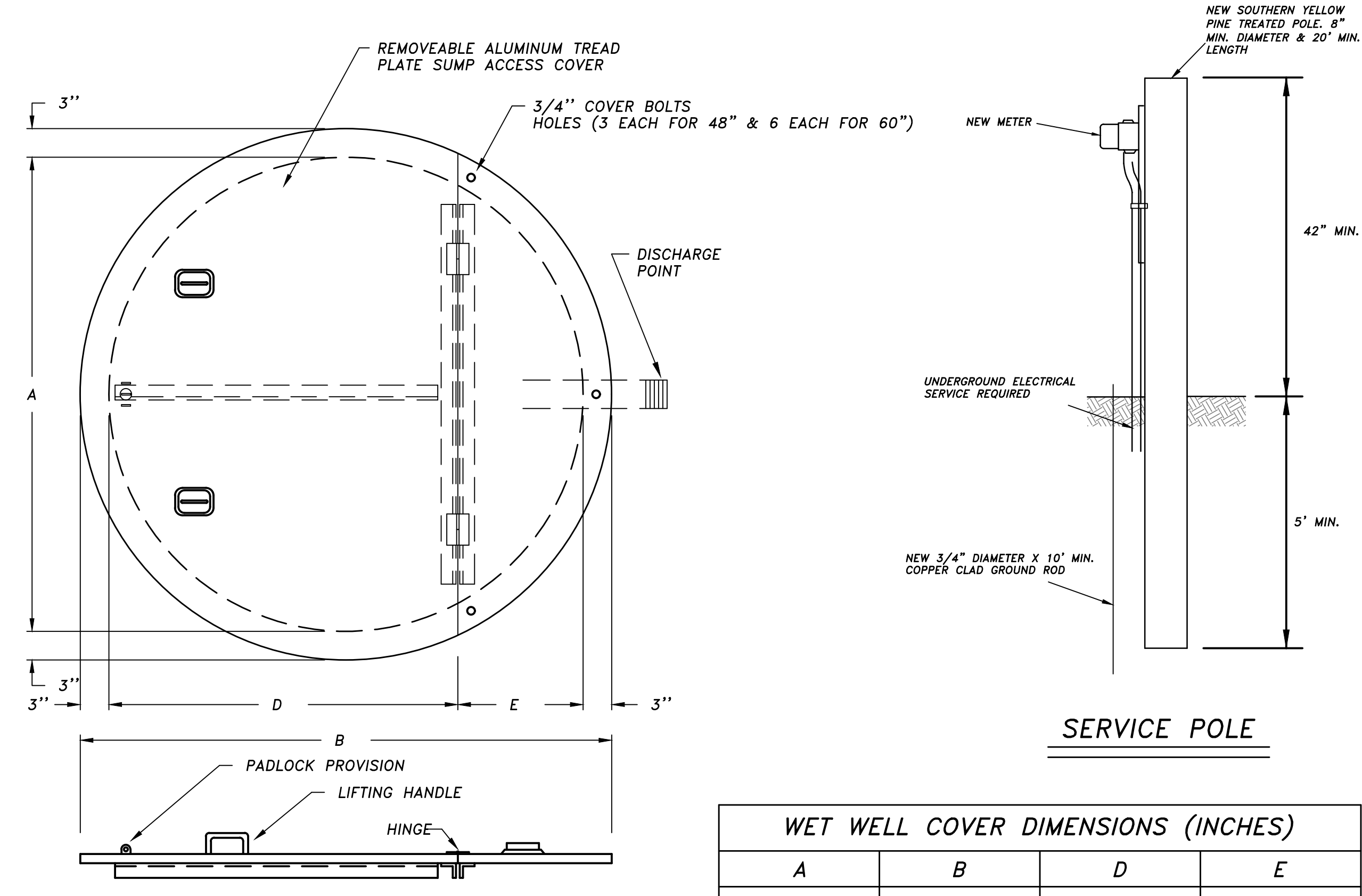
SHEET NUMBER:
9



ELEVATION ~ PUMP STATION WET WELL
N.T.S.

- NOTES:
1. IMMEDIATELY FOLLOWING WETWELL INSTALLATION, CONTRACTOR SHALL COMPLETELY PLACE AND COMPACT BACKFILL, INSTALL TOP COVER, FILL WITH WATER, AND ANY OTHER PRECAUTIONS NECESSARY TO PROTECT WETWELL FROM UPLIFT FORCES.
 2. CONTROL PANEL, PIPING, ETC. SHALL BE FIELD LOCATED TO BEST FIT SITE AS DIRECTED BY ENGINEER AND OWNER.
 3. SITE TO BE DRESSED AND GRADED TO UNIFORM SLOPES TO DIVERT SURFACE DRAINAGE AWAY FROM WETWELL AND VALVE BOX.
 4. THE ELEVATIONS SHOWN IN THE DESIGN TABLE ARE THE MINIMUM DESIGN REQUIREMENTS. IF MANUFACTURER OF THE PROPOSED PUMP REQUIRE A GREATER DEPTH, THE WETWELL BOTTOM SHALL BE LOWERED AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
 5. INLET & OUTLET PIPE CONNECTIONS TO BE SHIPPED LOOSE (FOR LOCATION & INSTALLATION IN FIELD).

PUMP STATION PLAN VIEW
N.T.S.

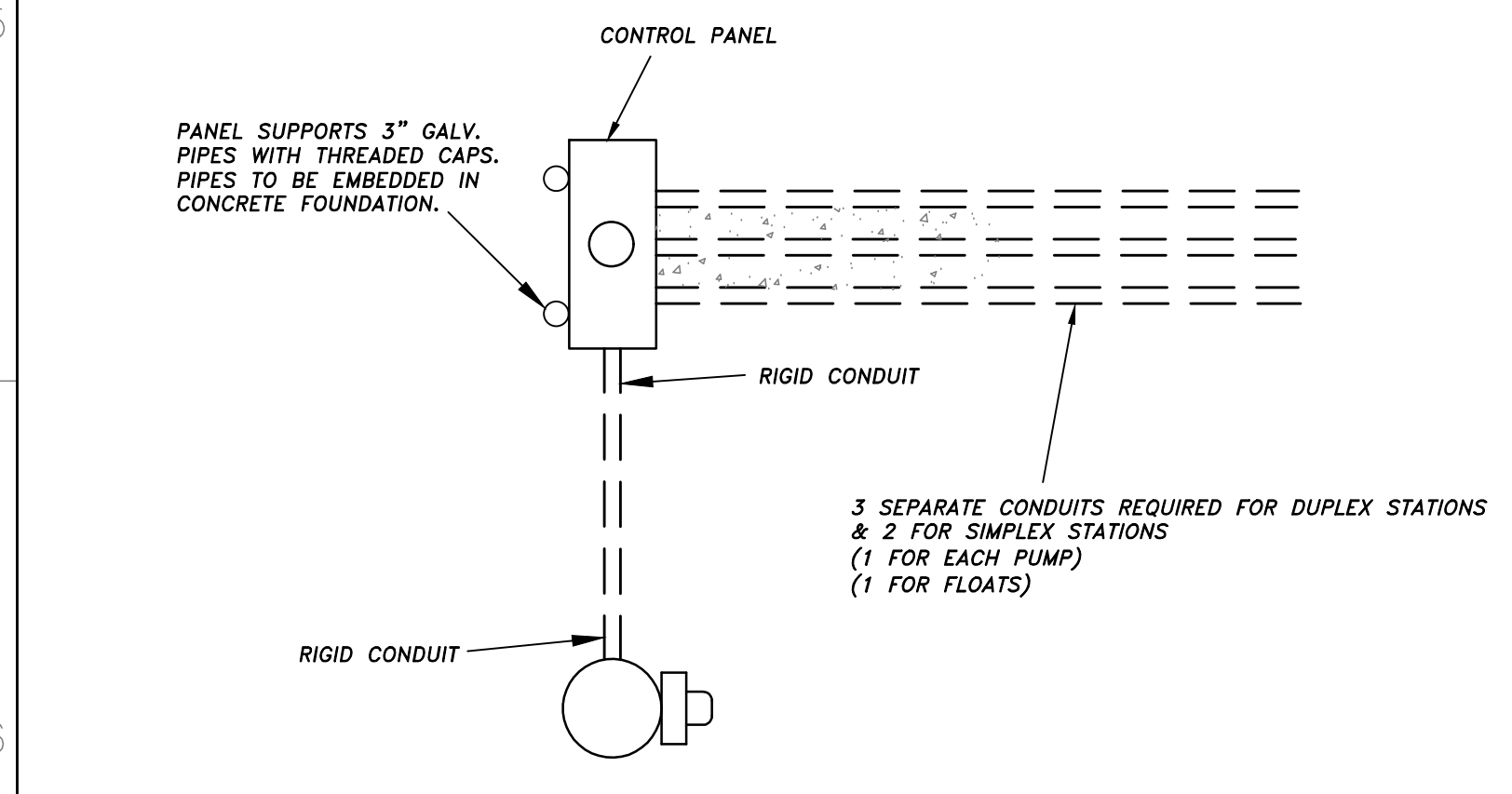


BASIN COVER

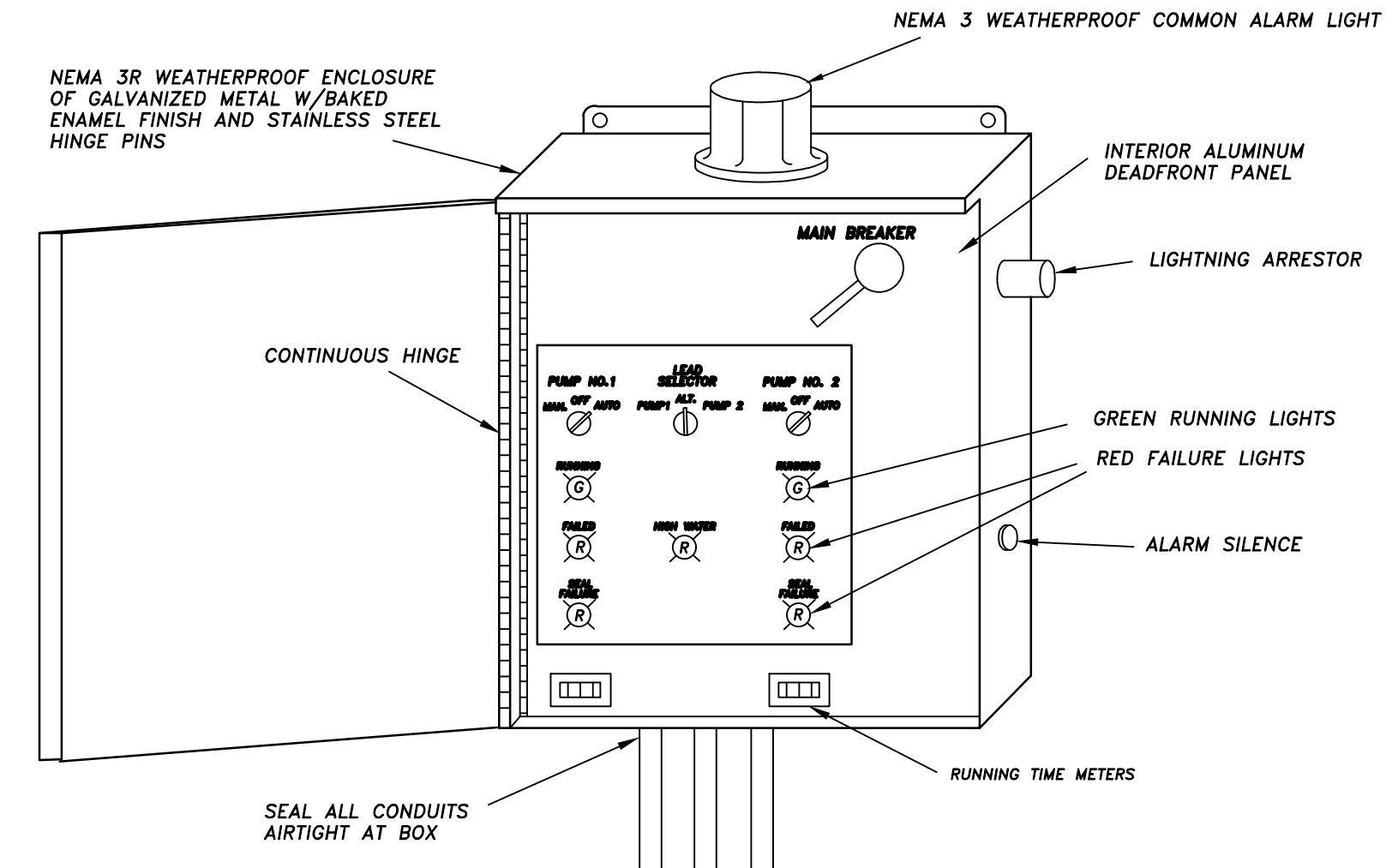
| WET WELL COVER DIMENSIONS (INCHES) | | | |
|------------------------------------|----|----|----|
| A | B | D | E |
| 48 | 54 | 38 | 10 |

| DUPLIX PUMP STATION DATA | | | |
|-------------------------------------|--------|----------------|--|
| PARAMETERS | | UNITS PUMP 1&2 | |
| CAPACITY (PUMP) | G.P.M. | 35 | |
| SIZE | HP | 5HP (MIN.) | |
| MOTOR VOLTAGE | VOLTS | 230 | |
| MOTOR SPEED | R.P.M. | 3450 | |
| PHASE POWER | N.A. | 3 | |
| FRICTION HEAD (C=140) | FT. | 4.4 | |
| ELEVATION HEAD | FT. | 7.0 | |
| TOTAL (T.D.H.) | FT. | 11.4 | |
| FRICTION HEAD (C=100) | FT. | 61.0 | |
| PRESSURE HEAD EX. 12" FM | FT. | 35.0 | |
| TOTAL (T.D.H.) | FT. | 104.0 | |
| WET WELL I.D. | IN. | 48" | |
| FORCE MAIN I. D. | IN. | 2" | |
| DISCH. PIPE, VALVES & FITTINGS I.D. | IN. | 2" | |
| FORCE MAIN LENGTH | L.F. | 175' | |
| ELEVATION TOP | FT. | 263.50 | |
| ELEV. LOWEST GRAVITY INVERT | FT. | 257.00 | |
| ELEVATION ALARM | FT. | 257.50 | |
| ELEV. ON 2ND PUMP | FT. | 256.50 | |
| ELEV. ON 1ST PUMP | FT. | 255.50 | |
| ELEVATION OFF (1st & 2nd) | FT. | 254.50 | |
| ELEVATION INVERT | FT. | 252.50 | |
| ELEV. 2" FM DISCHARGE (Ø 12" FM) | FT. | 260.00 | |
| ELEV. CONTROLLING HIGH POINT | FT. | NA | |

- NOTES:
1. PUMPS SHALL BE PENTAIR HYDROMATIC - HPCH, SPEED RATED 3,450 RPM, MOTOR RATING 5.0 HP, 4.75 INCH IMPELLER PROVIDE 3 PHASE POWER.



CONTROL PANEL PLAN VIEW



TYPICAL CONTROL PANEL

| REVISIONS | BY |
|-----------|----|
| | |
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| | |
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| | |



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601-200-8885
WOOLRIDGEARCHITECTURE@YAHOO.COM

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Gluckstadt, Mississippi

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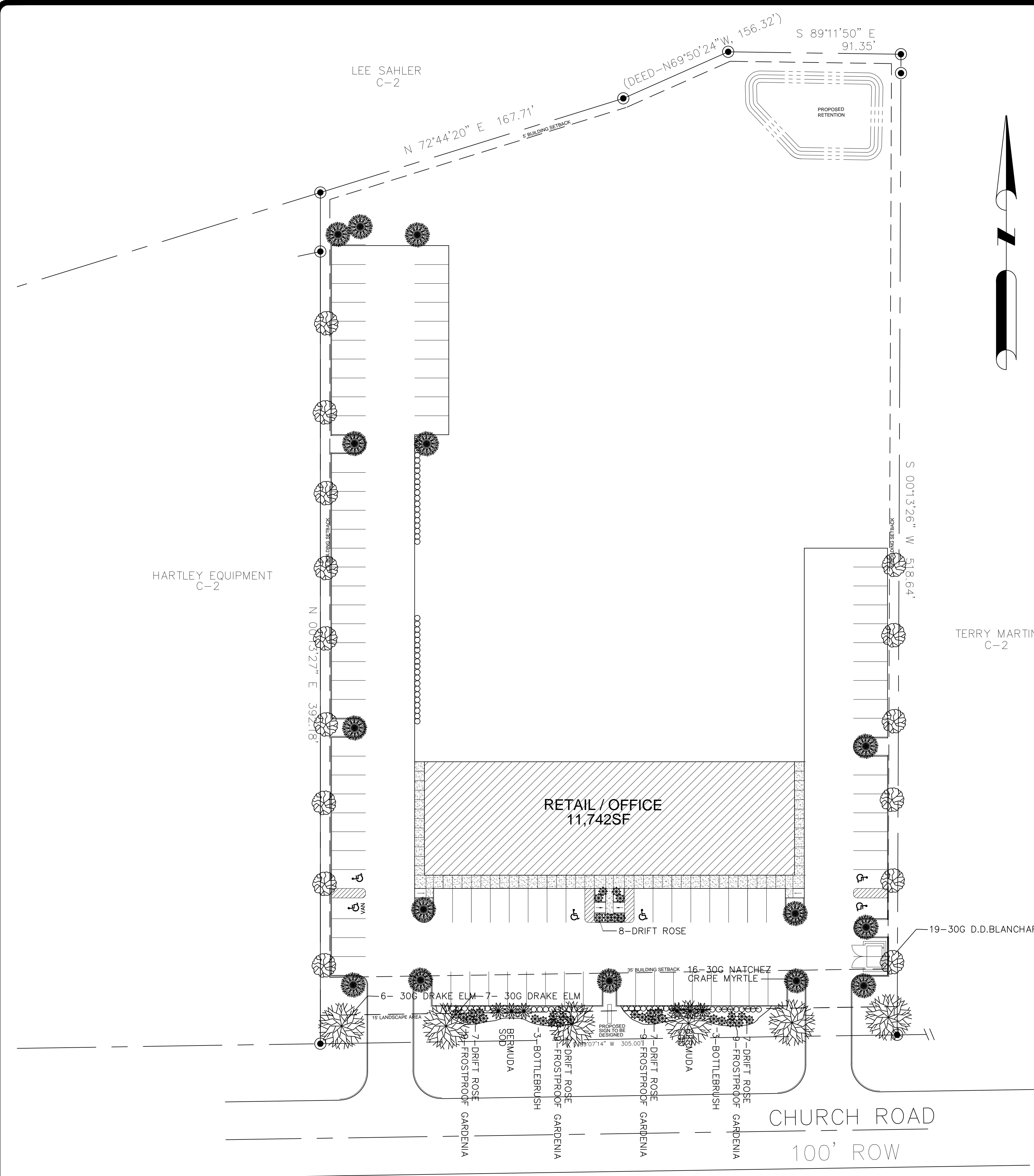
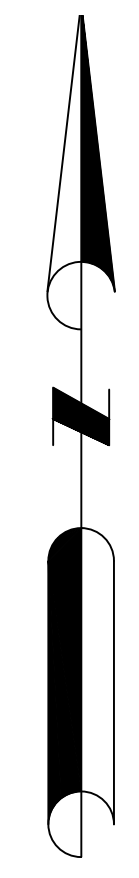
| |
|----------------|
| DRAWN |
| CHECKED |
| DATE 3/2/22 |
| SCALE |
| JOB NO. |
| SHEET |

A0.1

SITE 151,125SF (3.47AC)
 SITE 151,125SF (3.47AC)
 BUILDING 11,742SF
 SITE COVERAGE 7.7%

C2 ZONING
 BUILDING USAGE AND PARKING REQUIREMENTS
 RESTAURANT 3,000SF /100 = 30 PARKING SPACES
 RETAIL 8,742SF /225 = 38.8 PARKING SPACES
 TENNIS COURTS 9 COURTS X 2 = 18 PARKING SPACES
 45 SPECTATORS = 9 PARKING SPACES

PARKING REQUIRED: 96 PARKING SPACES
 PARKING PROVIDED: 96 PARKING SPACES



1 LANDSCAPE PLAN
 SCALE: 1"=30'-0"

SITE PLAN.dwg

3/28/2022 3:33 PM

DW